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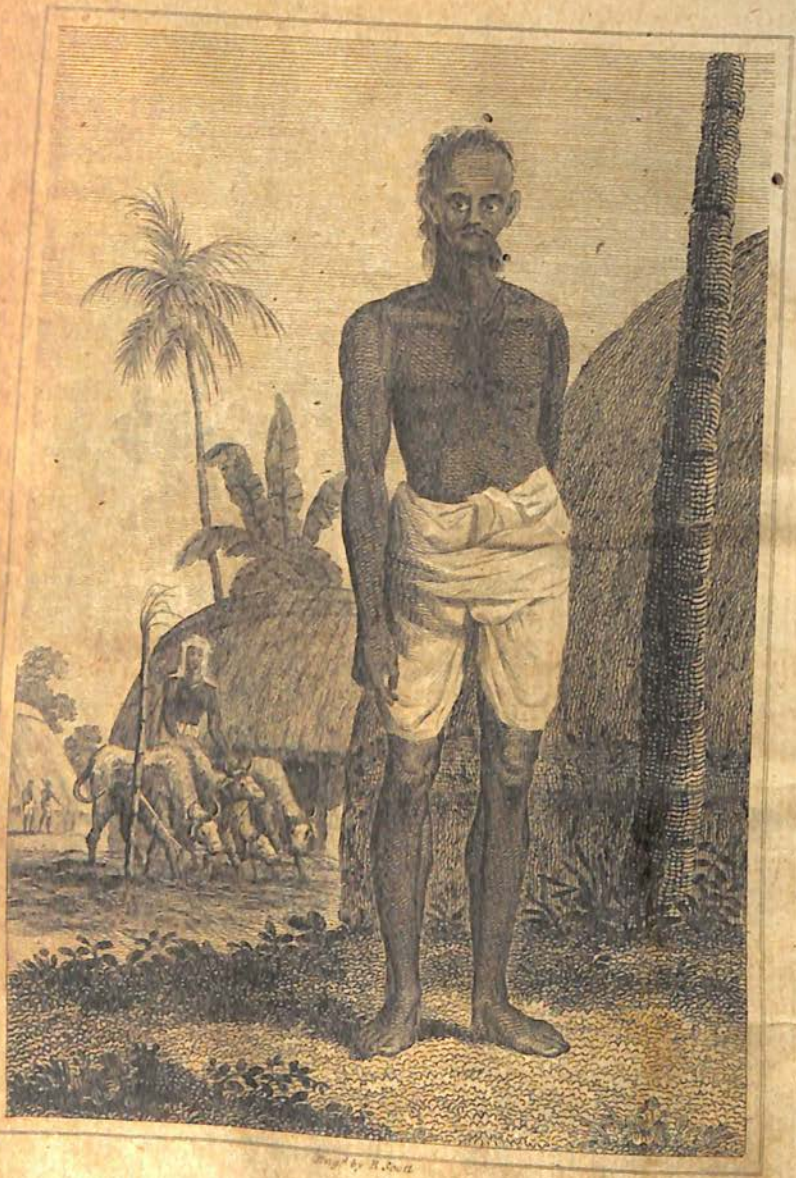

THE THRASHING FLOOR OF A RYUT.

# INDIAN RECREATIONS:

CONSISTING

OF

*CHIEFLY OF STRICTURES*

50383

ON THE

## DOMESTIC AND RURAL ECONOMY

OF THE

*MAHOMMEDANS & HINDOOS*

B2274

BY THE REV. WILLIAM TENNANT, L.L.D. M.A.S.

AND LATELY ONE OF HIS MAJESTY'S CHAPLAINS IN INDIA.

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# PREFACE.

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As each of the ſections in this volume contains a ſhort eſſay on the particular ſubject treated of, a perfect arrangement of the different parts of rural economy has not been ſo much ſtudied as variety: Some of the agricultural details are unavoidably minute; and it has been deemed eligible to relieve the reader's attention by introducing other topics, leſs tedious, and more intereſting to the generality of readers. In a few inſtances facts are alluded to, and authors quoted, poſterior to the date of theſe eſſays; this the author thought himſelf warranted to do when the work was in the preſs; judging that his readers would be deſirous to ſee his ideas confirmed, and his reaſonings

reaſonings elucidated by every authority he could procure.

In acquiring the neceſſary information regarding the various branches of rural economy contained in this volume, the author obtained the ſame valuable aſſiſtance he enjoyed in treating the different ſubjects diſcuſſed in the firſt; he has therefore good reaſon to think that in no article of importance his readers can be miſled; and will hope to receive from them that indulgence which one of the more correct of the ancients has offered to his contemporaries, and to poſterity:

*Non ego paucis*
*Offendar maculis, quas aut incuria fudit*
*Aut humana parum cavit natura.*

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ERRATA.

# ERRATA.

PAGE.

5 l. 5. *for* on, *read* on data.
16 l. 5. *for* over-reaped, *read* overcropped.
56 l. 5. from bottom, *for* pidgeon, *read* widgeon.
76 l. 13. *for* with, *read* within.
97 l. 2. *for* then, *read* there.
157 l. 12, *for* ſanction, *read* exertion.
192 l. laſt, *for* Sochar, *read* Lochar.
278 l. 9. *for* heading, *read* treading.
314 l. 9. from bottom, *for* higher, *read* lighter.
378 l. 3. from bottom, *for* fortunately, *read* unfortunately.
382 l. 4. from bottom, *for* Barcilly, *read* Bareilly.
381 l. 3. *for* ready, *read* reedy.
395 l. 2. from bottom, *for* often, *read* after.

# INDIAN RECREATIONS.

## THE POPULATION OF BRITISH INDIA.

. . . . . .

*Calcutta, Jan.* 1797.

THE population of this country cannot be aſcertained, as in Europe, by public regiſters of births, marriages, or burials. Looſe and inaccurate, as the calculations there have hitherto been, they are founded on more certain data than can be obtained in India.

THE ſame tillage, and proportion of manufactures, ſupport a much greater number of people here, than they could maintain in Britain; and the lateſt computations riſe conſiderably higher than thoſe looſe conjectures that were formerly hazarded on this ſubject. Theſe eſtimated the population of Bengal, and the upper provinces, at eleven millions; and that of our poſſeſſions in the Deccan, at nine. About nine

years ago, the collectors were required to give an opinion of the population of their respective districts, and their report founded an estimate of twenty-two millions for the inhabitants of Bengal and Behar.

By an official enquiry made in the district of Purnea, there were found 80,914 Ryuts holding leases; 22,324 artificers paying ground rent, in 2,784 villages, upon an area of 2,531 square miles. Allowing the number of five to a family, this gives about 2003 to a square mile. The whole provinces in this presidency contain 162,500 square miles; and by this estimate, a population of nearly thirty-three millions. In this district there are a few lands amounting to an eighth part of the whole, that are not included; nor the inhabitants of any city or considerable town. Although, therefore, one eighth part of Bengal be allowed for waste land, this calculation will apply to it without much deduction.

Actual surveys have been made of different districts; and in these the land occupied in tillage has been distinguished from that occupied by water, or waste; and the proportion of the latter description has been found to be about one fourth of the whole surface. The cultivated land in Bengal, applying this proportion, will amount to 31,331,499 acres; and it has been found by actual enquiry into the extent of land occupied by 70,000 cultivators, that each possessed about eighteen begahs in actual tillage. Hence the cultivated acres in Bengal, above stated,

require

require 5,265,432 tenants. To theſe the proportion of artificers and manufacturers muſt be added, which has been found to be eleven to forty, which gives 6,718,154 heads of families, at five perſons each; or 33,590,770 for the number of inhabitants.

A THIRD eſtimate of the population of theſe provinces has been founded on the average rent paid by each tenant. The rent roll produced by 68,647 leaſes, has been found to amount to 498,020 S. Rs. or nearly ſeven rupees to each tenant.

THE groſs rent paid by the farmers the firſt year of the permanent ſettlement amounted to 3,63,88,129 Rs. or 6,064,688 tenants; whoſe families, at five each, give a population of above thirty millions of inhabitants. The near coincidence of theſe reſults from different grounds, ſupport in ſome degree the credibility of each.

THE population of this country has been eſtimated from the conſumption. The moſt common articles of diet which may be deemed the neceſſaries of life to a native, are rice, ſplit peaſe, and ſalt: eight pounds of the firſt article, two of the ſecond, and two ounces of ſalt, is reckoned the daily conſumption of a family conſiſting of five perſons in eaſy circumſtances. Hence the yearly ſupply of ſalt for each individual is nine pounds. A conſiderable portion of the ſalt manufactured in Bengal is exported: on the other hand, the mountaineers of the weſt, uſe either rock ſalt, or

an

an impure compoſition extracted from aſhes or from nitre. Hence the quantity conſumed may probably correſpond nearly to that manufactured in the country; and the annual ſales amount to 35,31,944 maunds, which require for conſumption 32,228,986 individuals.

THE fifth and laſt method which has been adopted for aſcertaining the population here has been eſtimating the whole produce of the cultivated acres according to the above rate of conſumption in each family allowing for ſeed and a ſmall proportion for the uſe of cattle. To ,47,77,797 begahs in cultivation this gives a groſs produce of 34,28,57,140 maunds. The average value of this annual produce, may amount to 120,130,000 Rs. a ſum correſponding to ten rupees and a half for each acre: a very moderate produce, but not diſproportioned to the exertions of Indian huſbandry.

FROM our late acquiſitions in the Myſore and Carnatic, the population of that part of the Britiſh poſſeſſions muſt be more than double within theſe laſt five years. Eighteen or twenty millions cannot be reckoned an extravagant eſtimate for ſo large a country—If in fact the number of people fall ſhort of this computation in the Deccan, the deficiency muſt be more than compenſated by large acquiſitions of territory from the provinces of Owde. The dominions of the Eaſt-India Company, therefore, contain a population of probably not leſs than fifty millions of ſouls: an eſtimate,

eſtimate, whether extravagant or not, certainly far ſhort of the number capable of finding maintenance, on ſuch a vaſt tract of fertile ſoil, lying in a climate propitious to all the operations of huſbandry.

THESE computations are founded on furniſhed by a learned judge who, from long reſidence in the country, and a perfect knowledge of the language, is, perhaps, more intimately acquainted with its ſituation than any other perſon in India. After all, however, it is not pretended, that an accurate ſtate of the population can be given till each collector in his diſtrict make out an exact return. The populouſneſs of this country, when aſcertained, will always afford a pretty juſt idea of the nature of its government: the early and productive marriages of the Hindoos will always bring the number of people to correſpond with the means of ſupply: the latter will be in proportion to the degree of protection and ſecurity afforded.

IN a ſociety conſiſting almoſt entirely of labourers, whoſe food and cloathing is ſo limited, little ſcope is afforded to agriculture or manufactures, in ſupplying its own wants. The increaſe of exported produce can alone give room for greater tillage, and call forth a larger portion of induſtry, and of hands to manufactures. "The inhabitants, wanting a vent for their produce, have no inducement to greater induſtry. If more produce were attained, its market being barred, induſtry would be unrewarded. The neceſ-

ſaries

ſaries of life are cheap; the mode of living ſimple; and though the price of labour be low, a ſubſiſtence may be earned without the uninterrupted application of induſtry. Often idle, the peaſant and manufacturer may, nevertheleſs, ſubſiſt. A few individuals might acquire wealth, by diligent application; but the body of the people, doomed to poverty by commercial limitations, can apply no more labour than the demand of the market is permitted to encourage. If induſtry be encouraged, the preſent population is ſufficient to bring into tillage the whole of the waſte lands of Bengal and Bahar; and in moſt diſtricts improvement may be expected whenever new channels of trade are opened, to take off more or new articles of produce*."

THE huſbandry of India, probably, requires a greater number of hands to the ſame extent of ground than that of England, as here the ſame field in the common culture, yields ſeveral crops, two, and often three, within the year. The operations of the farmer, though leſs interrupted by weather, are more numerous; indeed they cannot be ſaid ever to ceaſe. The different varieties of pulſe and millet have ſcarcely any appropriate ſeaſon. They vegetate rapidly; and are uſeful in occupying an interval after a late harveſt, which will not permit the uſual courſe of huſbandry. The oil plants in general ripen in the winter, excepting the Seſame, which is gathered in the rains.

FROM

* Remarks on the Agriculture &c. of Bengal.

FROM the circumſtance of the people living on vegetable diet, and their climate yielding ſeveral crops in the year, ſome good judges have ſuppoſed, that four times the number of people might be maintained on the ſame quantity of land, that can be done in Britain.

IMPERFECTIONS

## IMPERFECTIONS OF HINDOO HUSBANDRY, AND THE OBSTACLES TO ITS IMPROVEMENT.

. . . . . .

*Berhampore,* 1797.

WITH an excellent ſoil, and climate, and poſſeſſed of almoſt every variety of cultivated grain, and a competent number of hands to raiſe them, the imperfection of huſbandry in Hindoſtan is far greater than we ſhould have expected.

1. THE beſt ſeaſon of ſowing is not ſufficiently attended to: the month of the rains has been found the moſt advantageous period for rice, ſince it admits of the harveſt in the commencement of the dry weather. Hence the rice of this ſeaſon is not only moſt plentiful, but is not liable to early decay. From the want of a ſufficient number of hands, induſtry and capital, this crop is ſometimes ſown in the dry weather, and at the beginning of the rains, when the return is never equally profitable. In the

the caſe of ſowing during the dry ſeaſon, the expence of irrigation becomes ſo great as muſt encroach deeply on the profits. Though ſeveral ſeaſons occur here in the ſame year, yet much greater attention to the period ſuitable for different crops, than is paid by the farmer, is neceſſary.

2. The Hindoo peaſant is deficient in the choice and ſelection of the beſt varieties of each grain. The culture of almoſt every plant, and particularly of the *graminæ*, in proportion as it has been long diffuſed, induces numerous varieties. The ſeveral ſeaſons of cultivation, added to the influence of ſoil and climate, have multiplied the different ſpecies of rice, into endleſs variety. From the awned and unawned, from that growing on the mountains to that produced in humid ſituations, there are various diverſities adapted to every circumſtance of ſoil, climate, and ſeaſon, which might exerciſe the judgment of ſagacious cultivators, but which the Hindoo overlooks, except in the moſt obvious caſes. The enlightened farmers in Britain would here find ample room for improvement.

Of wheat and barley there are much fewer varieties: and I do not find in practice, that the ſimple expedient of changing the ſeed is attended to. The moſt common ſamples are ſmall, and not ſufficiently plump. The barley is probably too mean a ſpecies for our excellent ſoil and climate. It is invariably big, or the Hordeum tetraſtichum of Linnæus. The

wheat is a ſmall long awned variety, apparently unchanged for many centuries.

3. THERE is great want of green crops for houſe feeding: a circumſtance the more remarkable, ſince, during the dry months, the fields not in crop, are reduced to a ſtate of abſolute ſterility, and the ſtock barely kept alive. This is the more inexcuſable, becauſe there is in the occupation of huſbandry here every variety of pulſe that is known. No ſeaſon is without its appropriate ſpecies; but moſt ſpecies are ſown or ripen in the winter.

As all theſe thrive on poor ſoils, and require but little cultivation, they would prove moſt valuable products in huſbandry, could they be adminiſtered as green food, or applied as hay. The millets are alſo in great variety: they bear a low price; and are the food of the pooreſt claſſes. Several of theſe grains are reſtricted to no ſeaſon; vegetate rapidly, and occupy intervals between other crops: yet no contrivance has been fallen upon to have a ſufficient ſupply of them for the ſuſtenance of live ſtock during winter and ſpring. The maize, though the moſt productive of all corn, and not inferior as human food, has not yet been converted to this purpoſe. The coarſe ſtraw of this and ſome other ſorts of corn ſeem to make up the whole of the wretched provender of this country, where the cattle that ſurvive hunger, at certain ſeaſons are barely able to walk.

4. THE

4. THE univerſal uſe, and vaſt conſumption of vegetable oils muſt be regarded as in ſome reſpects prejudicial to agriculture. Much labour, and a great proportion of the cultivated land is occupied in the produce of this article, which might partly be ſaved by the uſe of animal food: oil is neceſſary to ſeaſon and enrich their food, where deprived of that article of diet. In anointing the body, and in ſupplying their lamps, immenſe quantities are conſumed. Hence the extenſive cultivation of lintſeed, palma chriſti, ſeſamum, and many other articles that trench deeply upon the productive grounds for human ſuſtenance: this muſt be highly diſadvantageous, if it be true as ſome have alledged, that all crops are ſcourgers, in proportion to the oil they contain.

5. AMONG the imperfections of our huſbandry the too ſcanty cultivation of the moſt valuable crops cannot be omitted. Tobacco, ſugar, indigo, cotton, mulberry, and poppy, are by far the moſt important productions of Bengal: theſe are not only rich in proportion to the land they occupy, but are moſt valuable in commerce and manufactures. They require land highly cultivated, and appropriated to their production; and there can remain no doubt, that a ſpirited huſbandry would convert a far greater proportion of the land to theſe valuable productions. Theſe do not hitherto occupy perhaps the twentieth part of the land which a greater capital, and more active huſbandry would force into their production. This end once accompliſhed, the number

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of productive labourers, and the profits of husbandry would be encreased in a very great degree. Sugar, as it ripens during the end of the dry season, might of itself probably supply the grand desideratum of Indian husbandry, the want of green food for cattle. It is the most nutritious of all vegetable food for every animal, that has yet been fed with it.

6. The paltry and insufficient implements of husbandry forms another great obstacle to good cultivation. In Spain, Italy, and the southern countries of Europe, these implements are bad; but yet here they are outdone by the Hindostanee spade or short hoe, by the wretched substitute for a harrow, and the trifling plough. Two or three pair of oxen are assigned to each plough, relieving one another, till the daily task be compleated. Several ploughs in succession deepen the same furrow, or rather scratch the surface; for the plough wants a contrivance for turning the earth, and the share has neither width nor depth to stir a new soil. A second plowing crosses the first; and a third is sometimes given diagonally to the preceding. These are frequently repeated, and followed by the substitute for the harrow before the tilth can be compleated. The weeders use the short handled spade, and sit down to their work: However familiar that posture may be to an Indian, his labour is not employed to advantage in this mode of weeding.

Expensive implements of husbandry, or complex machinery, are, perhaps, not necessary in oriental agriculture

agriculture, yet it cannot fail to ſtrike every obſerver that their tools are far below the ſtandard neceſſary for cheap and well executed labour.

THE univerſal uſe of the reaping hook, inſtead of the ſcythe, occaſions alſo much unneceſſary labour. This does not ariſe merely from the want of a more expeditious implement, but from the practice of ſelecting the ripeſt plants, which waſtes much time, while it damages the crop. Even the advantages of this practice are not fully gained; for, in one field, while the Ryut gathers the plants as they ripen, in another you will ſee the crop allowed to paſs the period of maturity. The loſs thus incurred by the grain which drops before harveſt, is ſo conſiderable, that if the field remains unſown, it will afford a crop by no means contemptible.

7. TILL lately the want of roads was much felt in Great Britain; in Hindoſtan, this want ſtill continues to operate with full force againſt its rural economy. From the low humid ſituation of Bengal, roads could not eaſily be provided ſo as to give acceſs to every field, in every ſeaſon; in the dry months, however, it would prove of vaſt advantage to the farmer to be enabled to carry his produce, by wheel carriage, inſtead of the tedious method of burdens which he now uſes. In forwarding the operations of huſbandry nothing is more effectual than good roads; it is the firſt ſtep to all ſolid improvement; and the ſimple fact, that the Hindoo does not carry

carry home his crop by means of cattle, is of itſelf a ſtrong proof of a ſtate of huſbandry diſproportioned to the population of the country. The boaſted roads of Shah Jehan, and ſome of the Emperors, are ſtill to be ſeen in their remains; but they probably were never very ſubſtantial, otherwiſe they could not have been ſo ſoon defaced. The high roads conſtructed by the Company, are perhaps better executed, but are by far too partial to afford any relief to the country.

8. In every hot climate, irrigation is the grand inſtrument of fertilization: in the higher parts of Bengal, as well as in the interior of Hindoſtan, it is the indiſpenſible requiſite of good huſbandry. From what we learn of China, the rural economy of India appears extremely defective in the article of irrigation, although this ſubject is leſs neglected than that of tranſport. In the management of forced rice, dams retain the water on extenſive plains; or reſerve it in lakes, to water lower lands as occaſion requires. In the ſame culture, ridges are raiſed round the field to retain water, which is raiſed by the ſimple contrivance of a curved canoe ſwinging from a pole. In other ſituations, ridges are alſo raiſed round the fields, both to ſeparate lands, and to conduct the water on conſiderable tracts. Water raiſed by the hand, or by cattle from wells, ſupplies the deficiency of rain in ſome diſtricts. Each of theſe methods, being within their own compaſs, is executed by the peaſants themſelves. But thoſe extenſive canals

nals which were dug in the neighbourhood of Delli, and in the Panjab, are not now in uſe; nor is that machinery, ſo general in China, any where uſed in India for raiſing water, though the beneficial effects of it are fully known from experience. Reſervoirs, water courſes, and dykes, are more generally in a progreſs of decay than of improvement.

9. THE ſucceſſion of crops, which engages ſo much of the attention of enlightened cultivators in Europe, and on which principally reſts the ſucceſs of a well conducted huſbandry, is not underſtood in India. A courſe extending beyond the year, has never been dreamt of by a Bengal farmer: in the ſucceſſion of crops within the year, he is guided by no choice of an article adapted to reſtore the land impoveriſhed by a former crop. His attention being fixed on white corn, other cultivation only employs the intervals of leiſure, which the ſeaſons of white corn allow to the land and to labour. It is ſcarcely poſſible to ſpecify the different courſes which obtain in a practice regulated by no other principle than convenience of time; it is no leſs difficult to enumerate the various combinations of different articles grown together upon the ſame field, or in the ſtubble of a former harveſt, or ſown for a future crop before the preceding harveſt be gathered.

A competent notion may be formed of this practice, by conceiving a farmer eager to obtain the utmoſt poſſible produce from his land without any conſideration

ſideration of the impoveriſhment of the ſoil. It may be judged that this avidity diſappoints itſelf, as the ſeveral articles deprive each other of nouriſhment. and as the land impoveriſhed makes bad returns for the labour and ſeed.

In moſt ſituations the land over-reaped in this manner ſoon requires to be recruited; the Indian allows it a lay, but never a fallow. For this there might be ſome apology, did the management of live ſtock give to lay all the benefit which belongs to this method; but as this is not the caſe, the putting their lands to reſt is the moſt inexplicable part of their whole ſyſtem. When it has lain long in this ſtate, the inefficacy of the Bengal plough is ſuch that it muſt be preceded by the ſpade; and the expence of this proceſs is ſo conſiderable, that old lays are rated, in the Ayeen Acbery, at a ſmaller aſſeſſment, from the difficulty and expence of breaking them up.

10. If exhauſted lands in this country are ill managed by being put lay, they are ſtill worſe treated in reſpect to manure The application of dung as a fuel, has almoſt entirely cancelled its uſes as a manure. The cattle for labour, and for ſuſtenance, are moſtly fed on ſmall commons, or other paſturage, intermixed with arable land, or fed at home on ſtraw. The cattle for breeding, and for the dairy, are fed in numerous herds upon the foreſts or downs: wherever fed, their dung is carefully collected

lected for fuel: the uſe of this article, as a manure, is reſtricted to ſugar cane, mulberry, tobacco, and poppy: and in theſe crops it is applied from neceſſity; becauſe few lands, without this ſtimulus, are ſufficiently rich to raiſe theſe productions. Some Europeans have concluded from the practice of the Hindoos, that manure in a hot climate was unneceſſary for corn crops: the Chineſe, however, are of all nations the moſt induſtrious in procuring this manure, and the ſuperiority of their crops is a full juſtification of the practice.

11. The want of incloſures may be ranked among the defects of Hindoo huſbandry, ſince cultivation ſuffers very conſiderably from the treſpaſs of cattle. A herdſman is but a poor ſubſtitute for a dyke; he ſuffers not the cattle to reſt, an object of no ſmall importance; and by his occaſional negligencies the crops are often hurt. Were all the land under cultivation, as in China, the benefit of incloſure might not be great; but where poſſeſſions are left partly in graſs, the advantage of having them incloſed, and ſubdivided, muſt be apparent.

12. From the want of drill huſbandry, and fallows, the land is but imperfectly cleaned, a circumſtance highly prejudicial to every crop. After the grain has riſen, the rapid growth of weeds demands much labour, and more particularly during the rains, when vegetation is far more rapid than in any European climate. This operation is always tedious,

and imperfectly executed in broad-caſt crops. The eye is not eaſily reconciled to ſee the labourer ſitting to this work, and ſcratching with a ſhort hoe among the promiſcuous grains, where the labour of a day is not equivalent to that of an hour in drilled crops. Wherever a country is fully peopled, as in China, and all hot climates, the culture of the garden is transferred to the field: almoſt every ſpecies of grain is drilled, and perfect cleanneſs for the admiſſion of air, and for allowing the full growth of the plants is an indiſpenſible requiſite of correct huſbandry. Even ſugar cane, a plant of all others the beſt adapted to the drill huſbandry, is in the upper provinces planted thick, and in promiſcuous clumps, which neither admit of ſtirring the ground, the ſuppreſſion of weeds, nor the free circulation of air: circumſtances which alone demonſtrate the imperfection of this branch of huſbandry.

13. The want of capital employed in agriculture and manufactures, cripples every enterpriſe in Hindoſtan. It not only confines and cramps the operations of the huſbandman, but prevents the diviſion of labour, and conſequently the ſkill of every tradeſman. Here every manufacturer working on his own account, conducts the whole proceſs of his art, from the formation of his tools to the ſale of his production. Unable to wait the market, or anticipate its demand, he can only follow his regular occupation, when called to it by the wants of his neighbours. In the interval he muſt apply to ſome other em-

employment in immediate requeſt; and the labours of agriculture, ever wanted, are the general reſource. Thus every labourer and artiſan, who has frequent occaſion to recur to the labours of the field, becomes himſelf a tenant. Such farmers, however, are ill qualified either to plan or execute a well judged ſyſtem of huſbandry, and are idly employed, to the great waſte of their time, in carrying to market the paltry produce of their ſmall farms.

If India had a capital in the hands of enterpriſing proprietors, who employed it in huſbandry and manufactures, theſe arts would be improved; and with a greater quantity and better productions, the ſituation of labourers would be leſs precarious and more affluent, although the greateſt part of the profit might reſt with the owners of the capital. In agriculture, particularly, which is the baſis of proſperity, the want of capital is a bar to all improvement. Supplied with it larger farms would be occupied, greater enterpriſe, and better information would enſue; and thus the various obſtacles to its ſucceſs would be diſcovered and overcome.

14. But the great impediment to improved huſbandry in India has ever been the want of ſecure leaſes, and a permanent intereſt in their poſſeſſions. Hence the levying of rents has in general been a continued ſcene of fraud and evaſion in one part, counteracted by plunder and oppreſſion on the other. The nature and variety of the different tenures has been

been intricate and complex, almoſt beyond conception; and the conſequence has been that hardly any leaſe has been ſpecific or ſecure. In India the revenue of the ſtate is, in fact, the land rent; hence the management of finances has a more immediate influence on agriculture here, than any other part of the adminiſtration. The tenant who had nothing to protect him againſt a whole army ſent to collect the revenue, but the doubtful clauſes of an obſcure leaſe, was perfectly defenceleſs, and often plundered. This precarious ſituation, without an aſcertained intereſt for a ſufficient time, has fully demonſtrated that no ſpirited agriculture can ever be expected in ſimilar circumſtances.

*Berhampore, Oct.* 1797.

No tables in Europe are more plentifully ſupplied than thoſe of the civil ſervants of the Company in Bengal. If after their return to their native country, they endeavour to imitate the luxury and ſplendour of the higheſt ranks, they are led into it while they remain here by the great abundance and cheapneſs of all kinds of proviſions. Game, poultry, fiſh, and water-fowl of all kinds, are in great plenty. The barn-door fowl, being a native of Aſia, and in many parts here ſtill found in its wild ſtate, did not ſurpriſe me by its appearance, but the numbers reared by a people who do not uſe them as food, certainly did.

The duck is, in Europe, perhaps the moſt numerous and varied ſpecies of fowls; here the number is

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ſtill ſuperior, and the variety much greater. In many parts I have ſeen them offered for ſale at three and four ſhillings per dozen.

THE poultry tribe, however, in India, with a few exceptions, are ſmaller in ſize than the ſame ſpecies in Britain; and as both the grain and vegetable food in Bengal are perhaps of inferior quality, they are not ſuppoſed to poſſeſs the ſame richneſs of flavour. One thing certain is, that as you purchaſe them in the bazars, they are far inferior in weight; and unleſs fed for ſome time before they are produced upon the table, they are a dry, ſtringy, and unpalatable food. The turkey, in particular, falls remarkably ſhort of the ſame bird in Europe: there muſt too be a very conſiderable difficulty in rearing it, as its price is far more exorbitant than any of the poultry tribe in this province. A pair of good turkies coſt, in the Calcutta market, about thirty rupees, or nearly four pounds ſterling. A ſum for which in almoſt any part of the province, you can put twenty or thirty dozen of fowls upon your table.

WITH regard to the feeding of poultry of all ſorts, Europeans ſeem faſtidious; but they juſtly obſerve, that as frogs, toads, lizards, and noiſome inſects, ſwarm upon the ground to ſuch a degree, as to give it the appearance of being in a ſtate of animation, it requires reſolution to eat animals that are known to eat ſo indiſcriminately. This remark with regard to the hog is ſo juſt, that you certainly cannot

not partake of it with any confidence without being acquainted with the manner of its being fattened.

For theſe reaſons the natives are rather the breeders and rearers than the feeders of poultry and ſwine for the European tables. The latter buſineſs generally falls to the lot of the Portugueſe of colour; or is managed in private families by their own ſervants.

From their poverty, an Hindoo family cannot afford to fatten mutton, beef, or poultry for the market. The advanced price for the proviſion would far exceed his capital: their induſtry and foreſight are probably as unequal to the taſk as their capital,; few of them could beſtow upon an ox the proviſion which might feed ſuch a family for months, on the diſtant view of drawing it back with a profit.

Another article diſplayed in ſufficient plenty at our tables is game: this is ſometimes procured by the labours of the chace, but oftener in Calcutta, by the ingenuity of the natives, who expoſe them for ſale in the Bazar at a certain price, as well as ſnipes, wild ducks, partridges, pheaſants, and various ſpecies of the ortolan tribe.

Of theſe are ſome varieties not known in Britain. Many kinds of game are ſo plenty, particularly the hares, ſnipes, and wild ducks, that a ſmall ſum will procure them at all ſeaſons in abundance.

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THERE is certainly a great difference in the taſte of moſt of theſe animals, from that of the ſame ſpecies, in the higher latitudes. Either our habits deceive us, or the flavour of the deer and hare is much inferior to what is found in Europe: the remark, however, is general among Europeans, that veniſon in Bengal is particularly lean and inſipid. The hare differs in other qualities, as well as taſte, from that of North Britain: it has neither the ſame ſtrength, nor ſwiftneſs, and may be ſooner taken by a ſet of terriers, than yours by a couple of good grey-hounds. The ſame obſervation applies to the fox of Bengal; he is a comparatively weak and ſlender animal, whoſe velocity in the chaſe affords but little ſport, being impeded by a buſhy tail, which he carries in an erect poſition above his body.

THE tables of Europeans are not ſo much indebted for their moſt diſtinguiſhing ornament either to the poultry, veniſon, or game, as to a vaſt profuſion of the moſt beautiful fruits. At an expence hardly worth attention, you may be ſupplied in moſt of the towns with a variety of the moſt delicious fruits, which, in Europe, hardly any fortune could procure. Above twenty different ſpecies of theſe are expoſed to ſale daily in the bazars of Calcutta, which enable the ladies of that capital to diſplay the elegance of their china and plate on a ſplendid deſert table, without incurring one half of the expence to which ſuch a diſplay of luxury would expoſe them, in almoſt any other part of the world. The Dutch merchants, in

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their country houſes around Batavia, are ſaid to equal, or ſurpaſs the citizens of Calcutta in the luxuries of the table, and the ſplendour of their equipage: But as European articles are always neceſſary to the comfort of Europeans, the precarious intercourſe which they have of late maintained with their native country, muſt have greatly impaired their revenues, as well as curtailed their enjoyments.

On a future occaſion, it may be worth while to give an account of the moſt common eſculent vegetables, and fruits of Bengal: at preſent they are only mentioned as they affect the economy of the table.

The Pine apple*, from its expence and difficulty of being procured, it always aſſociated in the mind of an European with ideas of ſhow and magnificence. With little care of cultivation this fruit may be reared in every garden, and may be procured for a few anas, in abundance, by thoſe who have not uſed the means of raiſing it. Inferior in richneſs and flavour to thoſe raiſed artificially, it certainly is; but though much flavour may be loſt, much ſtill remains, and the pine apple of Bengal continues perhaps the moſt palatable fruit of the country.

The Plantain, is a fruit ſtill more wholeſome, and more univerſally uſed than the pine apple, both by



* Bromelia Ananas, Rumph. Amboin. The name *ananas*, is a corruption of the Brazilian *nana*, by the Portugueſe.

Europeans and natives. It is cultivated around the meaneſt cottages all over the country: but in the upper provinces this fruit does not arrive at the ſame perfection as in Bengal. It is a biennial plant, ſpringing from a perennial root; during the firſt year it acquires its growth, and in the ſecond it perfects its fruit. From the rapidity of growth, and the immenſe quantity of food which it produces, it may juſtly be ranked among the moſt uſeful plants: the leaves are a yard and a half in length, by eighteen inches in breadth; and ſerve as wrappers for all kinds of goods, and for plates to the natives. The plant becomes in the ſtalk, as thick as a man's thigh; and from a ſingle ſtem, bears a bunch of fruit in quantity ſometimes equal to two Engliſh ſtones weight.

It is happy for the natives, that they have not attempted to convert this weighty ſaccharine produce into a fermented liquor, which it would certainly yield in great abundance, but which would by no means be equally innocent in its effects, as in that ſtate in which nature affords it.

Next to theſe fruits the Mangos are ranked by the natives. Nothing in nature preſents a richer proſpect, than a grove of mangos, at the ſeaſon of that fruit: the tallneſs, and verdure of the trees, the dark hue of their leaves, variegated by all the different tints of the plentiful crop; the number of birds of the moſt brilliant plumage, hopping among the branches, as if exulting in the plenty with which they are

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ſurrounded, forms a ſcene which ſeldom fails to attract the admiration of an European when he firſt travels through this country.

The mango is not only a wholeſome fruit, but extremely nutritive; and it is generally ate in the greateſt quantity, and with moſt avidity by ſuch as have reſided long in the country. To a ſtranger its taſte ſomewhat reſembles turpentine; to which peculiarity cuſtom ſoon reconciles him.

The planting of a mango grove, here called a *Tope*, is executed with great care; it forms one of their important religious duties; and this is one happy inſtance in which the dictates of a complicated ſuperſtition coincides with thoſe of morality. This majeſtic fruit-tree is the Rhamnus Mangifera Indica of Rumphius; It aſſumes the appearance of an oak, but is more grateful here, ſince it affords a thicker ſhade. The fruit is oblong, about the ſize of a gooſe's egg, and, when ripe, is of a red and yellow colour. It is made into various prepared diſhes; as a pickle it is frequently ſent to Europe; in India it is reckoned the moſt delicious of all fruit, and is preferred in the hot ſeaſon, to any other.

The Pomelo ſucceeds the mango as the ſeaſon advances; it is of ſuperior ſize; almoſt equally beautiful; but falls far ſhort in its richneſs of taſte and nutritive qualities. This fruit contains a large quantity of a very pleaſant ſubacid juice, which, during the heat

heat of the day, has a cooling effect without injuring the ſtomach, though taken almoſt in any quantity. Theſe fruits make a frequent and very reſpectable appearance at our deſerts, and when it is ſaid that they are perfectly innocent, much more is affirmed than can juſtly be done of many a fine object which here ſtimulate the avidity of the epicure.

THE Water-melon grows here to a ſize which renders it peculiarly ornamental to a deſert table; it is, however, neither a rich nor a nutritious fruit; but may be ate with ſafety. When to the foregoing the Pomegranate, Cuſtard-apple, Guava, Peach, and an endleſs variety of other productions of the orchard are added, the table is completely covered, and ſeems to groan under the profuſe load with which it is attired. The quantity both of meat and fruit, produced on the tables at Calcutta, rather reſembles a fortnight's ſupply of proviſions than a meal for the company—A circumſtance which, however ſuitable to our notions of ſplendour, certainly diminiſhes the elegance of our entertainments: In England, if I miſtake not, it would be regarded as a characteriſtic of vulgarity.

THE cumberſome variety diſplayed at European tables ſeems a compliance with the ideas of the natives regarding hoſpitality. The number of diſhes and fruits at the imperial table, mentioned in the Ayeen Acbery, exceeds all belief. In deſcribing the private life of Acber, the moſt abſtemious of all men, we are ſurpriſed to meet with ſuch a tedious and laboured

boured detail of culinary regulations; every branch of which ſeems to have been under the management of a particular corps enumerated on the eſtabliſhment of the army.

By ſuch ſplendid feſtivity are the evenings of the Europeans in Bengal exhilarated, after the laſſitude, fatigue, and debility unavoidably experienced during the day, in a climate, where the heat and moiſture are overpowering, and oppreſſive, even to the natives themſelves. It is with pleaſure, however, I can add, that exceſs and intemperance are much more ſeldom witneſſed than in Europe, and even than they were here, when the rude extravagances of ſocial intercourſe had not yet given way to more correct and elegant manners, and when perſons of higher rank, and better education, had not yet begun to make a part of every company. If Bengal, and particularly Calcutta, are deemed leſs fatal to European conſtitutions than formerly, this muſt rather be aſcribed to a reformation in the manners of the people, than any melioration of the climate. The firſt ſettlers, not only of the Engliſh, but of every other European nation, were men of bold and adventurous characters, but in general of mean birth and narrow education: for a while, till the importance of theſe poſſeſſions was better underſtood, they were followed by others of a ſimilar deſcription, whom neither experience nor reflection had taught the fatal conſequences of diſſipation in a warm climate. Whoever in theſe times, tranſgreſſes the bounds of moderation, muſt do it with a full

a full conviction of its impropriety, as well as againſt the influence of example; and ought therefore to ſubmit to receive leſſons of wiſdom, in the only way by which to *him*, they can be taught, by the admonitions of pain, and the dangers of diſeaſe.

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## THE HINDOO METHOD OF CULTIVATING THE SUGAR CANE.

*Berhampore, Oct.* 1797.

DR. ROXBURGH, whoſe purſuits after botanical knowledge are now ſo well known, has given an ample account of this branch of Indian huſbandry; and in the diſtrict where he reſided little can be added to his remarks in elucidating the preſent practice.

"AMONG the natives of India, he obſerves, the tranſitions from one ſtage of improvement to another are ſo exceedingly ſlow, as ſcarce to deſerve the name, except it be the few who have benefited by the example of Europeans. They naturally poſſeſs a ſtrong diſinclination to depart from the beaten path eſtabliſhed from time immemorial; however, when they ſee a certain proſpect of gain, with little additional trouble, they have frequently been known

to

to adopt our practices. We ourſelves ought now generally to keep in view, and to inſtil into their minds this maxim, that every new propoſition, merely on account of its novelty, muſt not be rejected, otherwiſe our knowledge would no longer be progreſſive, and every kind of improvement muſt ceaſe.

"At a period, like the preſent, when the importation of Eaſt India has become ſo much an object of importance to Britain, in conſequence of the preſent ſtate of ſome of the beſt of the Weſt India ſugar iſlands, every enquiry that may tend to open new ſources from whence that wholeſome commodity may be procured, at the cheapeſt rate, is of national importance.

"I believe there are few diſtricts in the Company's extenſive dominions where there will not be found large tracts of land fit for the culture of the ſugar cane: yet I know, from experience, the introduction of a new branch of agriculture, among the natives, to be attended with infinite trouble; therefore, where we find a province or diſtrict, in which the culture of the cane, and the working of ſugar has been in practice from time immemorial, there we may expect, without much exertion, to be able to encreaſe the culture, and improve, if neceſſary, the quality.

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In the northern provinces, as well as in Bengal, Codapah, &c. large quantities of ſugar and jagary are made; it is only in the Rajamundry and Ganjam diſtricts of theſe northern parts, where the cane is cultivated for making ſugars. I will confine my obſervations to the firſt, where I have reſided between ten and eleven years.

This branch of agriculture, in the above-mentioned Sircar, is chiefly carried on in the Peddapore, and Pettapore, along the banks of the Elyſeram river, which, though ſmall, has a conſtant flow of water in it the whole year round, ſufficiently large, not only to water the ſugar plantations during the dryeſt ſeaſons, but alſo a great variety of other productions; ſuch as paddy, ginger, turmeric, yams, chillies. This ſtream of water during the dryeſt ſeaſon, renders the lands adjoining, I preſume, more fertile than almoſt any other in India, and particularly fit for the growth of the ſugar cane.

In theſe two Zemindaries, from 350 to 700 *Viſſums*; or from 700 to 1400 acres of land, (the Viſſum being two acres,) is annually employed for rearing the ſugar cane, more or leſs, according to the demand for ſugar: for they could, and would with pleaſure, if they were certain of a market, grow and manufacture more than ten times the uſual quantity. It is very profitable; and there is abundance of very proper land; all they want is a certain market for their ſugar.

BESIDES the above-mentioned, a third more may be made on the Delta of the Godavery.

FROM the ſame ſpot they do not attempt to raiſe a ſecond crop, oftener than every third or fourth year. The cane impoveriſhes it ſo much, that it muſt reſt, or be employed during the two or three intermediate years, for the growth of ſuch plants as are found to improve the ſoil, of which the Indian farmer is a perfect judge. They find the leguminous tribe the beſt for that purpoſe.

THE method of cultivating the cane, and manufacturing the ſugar by the natives, hereabouts, is like all their other works, exceedingly ſimple. The whole apparatus, a few pair of bullocks excepted, does not amount to more than fifteen or twenty pagodas: as many thouſand pounds is generally, I believe, neceſſary to ſet out the Weſt India planter.

THE ſoil that ſuits the cane beſt, in this climate, is a rich vegetable earth, which, on expoſure to the air, crumbles down into a very fine mould: it is alſo neceſſary for it to be of ſuch a level, as allows it to be watered from the river, by ſimply damming it up, which almoſt the whole land adjoining to this river admits of, and yet ſo high, as to be eaſily drained during heavy rains.

SUCH a ſoil, and in ſuch a ſituation, having been well meliorated, by various crops of leguminous plants,

plants, or fallowing for two or three years, is ſlightly manured, or has had cattle pent upon it. A favourite manure with the Hindoo farmer, is the rotten ſtraw of the green and black peſſalloo. During the months of April and May, it is repeatedly ſtirred with the common Hindoo plough, which ſoon brings this rich looſe ſoil into very excellent order. About the end of May or beginning of June, the rains uſually ſet in, by frequent heavy ſhowers. Now is the time to plant the cane: but ſhould the rains hold back, the prepared field is watered by flooding from the river, and when perfectly wet like ſoft mud, whether from the rain, or from the river, the cane is planted.

THE method is moſt ſimple: labourers with baſkets, of the cuttings, with one or two joints each, arange themſelves along one ſide of the field; they walk ſide by ſide, in as ſtraight a line, as their eye or judgement enables them, dropping the ſets at the diſtance of about eighteen inches in the rows, and four feet aſunder from row to row: other labourers follow, and with the foot preſs the ſet about two inches into the ſoft mud-like ſoil: this with a ſweep or two with the ſole of the foot, they moſt eaſily and readily cover: nothing more is done. If the weather is moderately ſhowery, till the young ſhoots are ſome two or three inches high, the earth is then looſened a few inches around them, with a ſmall weeding iron, ſomething like a carpenter's chiſel: ſhould the ſeaſon prove dry, the field is occaſionally watered from the

the river, continuing to weed, and to keep the earth looſe about the ſtools.

In Auguſt, two or three months from the time of planting, ſmall trenches are cut through the field, at ſhort diſtances, and ſo contrived as to drain off the water, ſhould the ſeaſon prove too wet for the canes, which is frequently the caſe, and would render their juices weak and unprofitable: the farmer, therefore, never fails to have his field plentifully and judiciouſly interſected with drains, while the cane is ſmall, and before the time of the violent rains. Should the ſeaſon prove too dry, theſe drains ſerve to conduct the water from the river, through the field, and alſo to carry off what does not ſoak into the earth in a few hours: for, ſay they, if water is permitted to remain upon the field for a greater length of time, the cane would ſuffer by it, ſo that they reckon theſe drains indiſpenſibly neceſſary; and on their being well contrived depends, in a great meaſure, their future hopes of profit. Immediately after the field is trenched, the canes are all propped; this is an operation I do not remember to have ſeen mentioned by any writer on this ſubject, and is, perhaps, peculiar to theſe parts. It is done as follows:

The canes are now about three feet high, and generally from three to ſix from each ſet that has taken root, and from what we may call the ſtool; the lower leaves of each cane are firſt carefully wrapt up round it, ſo as to cover it completely in every part,

a ſmall ſtrong bamboo, eight or ten feet long, is then ſtuck into the earth in the middle of each ſtool, and the canes are tied to it: this ſecures them in an erect poſition, and gives the air free acceſs round every part. As the canes advance in ſize, they continue wrapping them round with the lower leaves, as they begin to wither, and to tie them to the prop bamboos higher up, during which time, if the weather is wet, they keep the trenches open; and if a drought prevails, they water them occaſionally from the river, cleaning and looſening the ground every five or ſix weeks. Tying the leaves ſo carefully round the cane, they ſay, prevents them from cracking and ſplitting with the ſun, helps to render the juice richer, and prevents their branching out round the ſides: it is certain that you never ſee a branchy cane here.

In January and February, the canes are ready to cut, which is about nine months from the time of planting; of courſe I need not deſcribe it. Their height when ſtanding in the field, will now be from eight to ten feet, foliage included; and the naked cane from an inch to an inch and a quarter in diameter.

A mill or two, or even more, according to the ſize of the field, is erected, when wanted, in the open air; generally under the ſhade of large mango trees, of which there are great abundance hereabouts. The mill is ſmall; exceedingly ſimple, and at the ſame

ſame time efficacious. The juice as faſt as expreſſed, is received into common earthen pots, ſtrained and put into boilers, which are, in general, of an oval form, compoſed of ill made thick plates, of country iron, rivetted.

THESE boilers hold from eighty to one hundred gallons; in each they put from twenty-four to thirty gallons of the ſtrained juice: the boiler is placed over a draft furnace, which makes the fire burn with great violence, being ſupplied with a ſtrong draught of air through a large ſubterranean paſſage, which alſo ſerves for an aſh-pit. At firſt the fire is moderate, but as the ſcum is taken off, a point they are not very nice about in theſe parts, as they look to quantity more than quality, the fire is by degrees increaſed, ſo as to make the liquor boil very ſmartly; nothing whatever is added to make the ſcum to riſe, or the ſugar to train, except when the planter wants a ſmall quantity for his own or a friend's uſe; in this caſe he adds ten or twelve pints of ſweet milk to every twenty-four or thirty gallons, or each boiler of juice, which no doubt improves the quality of the ſugar: the ſcum with this addition, comes up more abundantly, and is more carefully removed.

THE liquor is never here removed into a ſecond boiler, but is in the ſame boiled down to a proper conſiſtence, which they gueſs by the eye, and by the touch: the fire is then withdrawn, and in the ſame veſſel allowed to cool a little. When it becomes

pretty

pretty thick, they ſtir it about with ſtirring ſticks, till it begins to take the form of ſugar; it is then taken out and put upon mats, made of the leaves of the palmira tree, *(Boraſſus flabelliformis)*, when the ſtirring is continued till it is cold: it is then put up in pots, baſkets, &c. till a merchant appears to buy it.

THE Hindoo name of this ſugar is Panſadurry; its colour is fairer than moſt of the raw ſugars made in our Weſt India iſlands; but it is of a clammy unctuous nature, abſorbing much moiſture in wet weather, ſometimes ſufficient to melt a great deal of it; if not carefully ſtowed in ſome dry place, where ſmoke has acceſs to it.

MANY of the planters prefer that ſort of ſugar which they call Bellum, and Europeans Jagary; becauſe it keeps well during the wet weather if laid up in a dry place. It generally bears a lower price; yet, they ſay, this diſadvantage is often over-balanced by their being able to keep it with only a trifling waſtage, till a market occurs, for the farmer has often to wait for a market for his ſugar; beſides canes of inferior quality anſwer for jagary, when unfit for ſugar.

THE proceſs for making jagary differs from thoſe above deſcribed, in having a quantity of quick lime thrown into the boiler with the cane juice, about a ſpoonful and a half for every ſix or ſeven gallons of the

the juice. Here they do not remove the ſcum, but let it mix with the liquor; and when of a proper conſiſtence, about four or five ounces of Gengeley (oil of Seſamum orientale), are added to each boiler of liquor, now ready to be removed from the fire; theſe are well mixed, and then poured into ſhallow pits dug in the ground. They are generally about three feet long, and a half broad, and three inches deep, with a mat ſpread at the bottom, which is ſlightly ſtrewed with quick lime. In a ſhort time the liquor incorporates into a thick ſolid maſs; theſe large cakes, they wrap up in dry leaves, and lay by for ſale.

THEIR jagary is of a darker colour, than the ſugar, and contains more impurities, owing to the careleſs manner they prepare it, by allowing all the ſcum to incorporate with the liquor.

THE half viſſum, or one acre of ſugar cane, in a tolerable ſeaſon, yields about ten candy of ſugar, or rather more, if made into jagary: each candy weighs about 500 lb. and is worth on the ſpot from ſixteen to twenty-four rupees. In the Weſt Indies, ſo far as my information goes, the cane yields from fourteen to twenty hundred weight of their raw ſugar, worth on the iſland about 20l. of their currency. Here the produce is more than double; but on account of its inferior quality, and the low price it bears on the ſpot, the produce does not yield a great deal more money than in the Weſt Indies. However, as the la-

labour is incomparably cheaper, the Indian planter muſt make much larger profits.

THE ſituation of all the lands hereabouts is exactly alike; being in the middle of an extenſive plain adjoining the river: the ſoil in all is alſo much alike, ſo that the produce is nearly equal in all, when no unfavourable circumſtances happen. The ſame reſult is further eſtabliſhed by the quantity of ſugar a meaſure of juice will yield. Here it is almoſt always, except in a very rainy ſeaſon, or in lodged or wormy canes, about one ſixth part; or ſix pounds of juice yield one pound of ſugar. In Jamaica, Mr Beckford ſays, that on an average eighteen hundred gallons of juice may be reckoned to yield an hogſhead of ſugar, or ſixteen hundred weight, that is, one of ſugar to eight of juice. This proves our juice to be one fourth richer than theirs.

FROM the above calculation, it is evident that all the lands in this neighbourhood are better adapted to this culture than the lands of Jamaica; for here they not only yield a larger crop of canes, but the juice is alſo richer: and were our planters here to bring the molaſſes into account, employed in the Weſt Indies for the diſtillation of rum, their profits would be ſtill greater. At preſent this refuſe is given to cattle, or carried away by the labourers for whatever they think proper. It is thus productive of more real benefit, than if converted into ardent ſpirits. The natives in other parts of India are, how-

ever, well acquainted with the method of making both rum and arrack, nor have they learned this pernicious proceſs from Europeans, as ſome have ſuppoſed.

In this country the canes, while growing, are ſubject to fewer accidents than in the Weſt Indies. I will mention them briefly.

1. A very hot ſeaſon is the worſt; it injures the canes greatly, rendering them of a reddiſh colour, yielding a poor unprofitable juice: here they reckon the ſmall, heavy, pale yellow cane the beſt.

2. Storms, unleſs they are very violent, do no great harm, becauſe the canes are propped; however, if they are once laid down, they become branchy and thin, yielding a poor, watery juice, and to this they are ſometimes liable.

3. The worm is another evil which generally viſits them every few years: a beetle depoſits its egg in the young cane; the grubs of theſe remain in the plant, living on its medullary parts, till they are metamorphoſed into the pupa ſtate. Sometimes this evil is ſo great as to injure a ſixth or an eighth part of a field; but what is worſe, the diſeaſe is commonly general where it happens, few fields eſcaping.

4. The

4. The flower is the laſt accident they reckon upon; although it ſcarcely deſerves the name; for it rarely happens, and never but to a very ſmall portion of ſome few fields: Thoſe canes that flower have very little juice left; and it is by no means ſo ſweet as the reſt.

The lands occupied with the ſugar cane in the Zemindaries of Peddapore, and Pettapore, excluſive of thoſe iſlands formed by the mouths of the Godavery, amount to five hundred and fifty viſſums, or eleven hundred acres, and their annual produce is forty-four hundred weight per acre: their whole produce will therefore be twenty-ſeven hundred hogſheads of eighteen hundred weight each, or about one fourth part of the produce of the iſland of Jamaica. It is acknowledged by all, that this quantity might be increaſed to any extent, with advantage to the zemindar, the farmer, and government. This obſervation applies with double force to the upper provinces on the Ganges, as far as Rohilcund, where the ſugar lands are of indefinite extent; and where with a culture infinitely leſs perfect than that above deſcribed, great quantities of ſugar and jagary are already made by the natives. All that ſeems neceſſary in theſe immenſe tracts, is to open a market to the Ryut, and ſecure to him a ſtrict agreement to his leaſe with the Zemindar.

Transgressions in this point are the great bar to Indian huſbandry; for in a good ſeaſon the Zemindar

dar raiſes his demands, and makes the farmers of all denominations pay probably a fourth more than the rent agreed on. Cuſtom has rendered this iniquity common, and the farmer has no idea of obtaining redreſs of an evil, which to him appears as irremediable as the ravages of the elements.

OF

*Berhampore, Oct.* 1797.

MUCH order or arrangement cannot be expected in treating a ſubject, which you are compelled to examine, not methodically, but by piece-meal, as opportunity offers. You have not the choice what ſubjects you are to enquire into this ſeaſon, or what to inveſtigate the next; on the contrary, if examination is delayed, while you are on the ſpot, the opportunity is perhaps for ever loſt; and the next perſon you apply to for information, may, perhaps, prove more ignorant than you are yourſelf.

IN paſſing through theſe provinces with the army, during a period of five years, I have endeavoured, as much as poſſible, to connect together whatever obſervations I could make, relating to the rural economy of the farmer, and produce of the ſoil. Without

ſhelter

ſhelter or a fixed reſidence, this could not always be effected.—A palankeen and boat, or even a bungalow in military cantonments, is not a ſituation favourable to an elegant arrangement of your ſubject, or much poliſh of ſtile in treating it.

In this diſtrict, we have firſt to notice the Culture of Potatoes, which has been introduced into Bengal; and apparently with the moſt beneficial effect. It is a comfortable circumſtance, that ſuperſtition in Hindoſtan, all-powerful as it is, does not ſhut up every avenue to improvement, or preclude the people from every advantage to be derived from the ſuperior attainments of Europeans, in induſtry, art, and ſcience. No prejudice prevents the Hindoo from the culture and uſe of the potatoe: the moſt uſeful and nutritive of all vegetables in every country where the growing of it is fully underſtood. If the natives here have hitherto derived but ſmall benefit from this plant, it is becauſe the culture has not become univerſal, nor has the method of preſerving it been ſo much attended to as in Europe.

The ſoil of Bengal, and the long continuance of dry weather, may, perhaps, prevent the growth of the potatoe to the extent neceſſary for the food of the common people.—In that caſe, the good effects of its introduction may not be ſo generally felt as they have been in Europe.

The

THE quantity, however, procured by Europeans, almoſt at every ſeaſon of the year, clearly ſhows, that theſe obſtacles are not altogether inſuperable. The potatoe, at preſent almoſt univerſally makes a diſh at European tables: it is well dreſſed, and little inferior to what we have in England: in ſize, indeed, it is ſmaller, and the crop is leſs abundant; hence, in the Bazar, rice is, in general, a cheaper food. The natives ſhow a willingneſs to uſe it on all occaſions, where it can be as eaſily procured, as other food: and there remains not a doubt, if ever the potatoe ſhall become cheaper than the rice, that it will be generally preferred.

A DRY ſeaſon is unfavourable to the rice crop; but is certainly the beſt for this vegetable: it would appear, then, that nature points out the one crop as a ſubſtitute, when the other fails. In order to ſecond her views, however, a certain quantity of land in every farm ſhould be planted with the potatoe; for nothing ſhort of this precaution will ever ſecure an adequate ſupport during a failure of the uſual crop to ſo numerous a people, and ſo improvident as the Hindoos. The encouragement, and ſometimes the interference, of government might be neceſſary, at firſt, to eſtabliſh the practice: but if it once were introduced, the tenaciouſneſs of the Hindoos to their ordinary routine of culture, would prove a full ſecurity for its preſervation. Some years ago, a gentleman diſtributed two boat-loads as ſeed to the natives in the neighbourhood

bourhood of Cawnpore, and the crop has gradually increaſed ever ſince.

THE abatements of rent unavoidable in years of ſcarcity, and the no leſs inevitable expence of purchaſing rice, and ſelling it at a low price to preſerve the lives of the poor, fall ſo heavily upon government, that the introduction of the potatoe into every farm, by the interference of authority, ſeems to be equally a dictate of economy and prudence, as of common humanity.

At Madras, and ſome other parts of the Coromandel coaſt, I am informed, that the benevolent exertions of ſome well diſpoſed perſons, have introduced the bread-fruit tree: if this has ſucceeded, and in ſome degree it has, it was accompliſhed by the projectors of it, on views of advantage far leſs certain or immediate, than the introduction of the potatoe.

IT frequently is not the diſcoveries which yield the moſt ſubſtantial benefit to human ſociety, that make the moſt ſplendid figure in the annals of hiſtory.

THE man who firſt introduced into Europe the uſe and culture of the potatoe, has conferred a real and permanent benefit upon the poor, which, in every country, comprehends nine-tenths of mankind. He has relieved the importunate calls of hunger in many a family; and in the inſide of the cottage, he has gladdened many a countenance, that, before his day, was ſullen

ſullen with hunger, or ſhrivelled with want. This perſon, though unrecorded in the annals of Fame, ought, in ſimple juſtice, to occupy one of the firſt ſeats in her temple.—This honour is ſaid to be due to that adventurous but ill-requited ſtateſman Sir Walter Raleigh.

It would, perhaps, be too ſanguine to expect, that a vegetable, not perfectly congenial to the climate of Hindoſtan, ſhould ever be turned to ſo much account in feeding hogs, poultry, and cattle, as it is in Britain and Ireland: but if, by our example and judicious encouragement, the potatoe ſhall become of as univerſal uſe among the Hindoos, as it is in theſe countries, the Europeans of the preſent age will have the honour of making ſome atonement for the miſchiefs and devaſtations committed by their anceſtors for two centuries in America.—Amidſt ſo many changes of manners, we may at leaſt hope for a period, when virtue and humanity ſhall be as reſolute and perſevering in their aim, as avarice or cruelty.

So little attention has hitherto been paid to the melioration of the condition of the natives, that you cannot even attempt it, without incurring the ridicule of a great proportion of the Europeans in India. They tell you, that the moſt trivial cuſtoms of the people are as immutable as the laws of the Medes and Perſians; and nothing ſhort of fatuity could induce any perſon to attempt a change This is a plauſible excuſe for the univerſal neglect of this important ſub-

ject; and is urged by ſome as a plea for the omiſſion of what conſcience tells them is a duty. Europeans, in general, viſit this country for the advancement of their own fortunes; an object which they purſue, as at firſt, from neceſſity, but afterwards, from habit. If perſonal advantage becomes the great rule of action, it is a convenient principle for many, yet, if eſtabliſhed, would vindicate every act of oppreſſion committed amongſt mankind in every age.

THE uncertainty of a rice crop, as the only ſupport of a numerous people, is ſufficient of itſelf to juſtify every attempt, however unpromiſing, to introduce other ſtaple articles to come in aid of it in times of ſcarcity. A grain which depends upon the quantity of rain, and on the number of inches to which the ſtream riſes on the Ganges, experience has often proved to be an awful contingent to hang the lives of millions of our fellow-creatures on. If a ſtimulus to their indolence, or even a ſmall violation of ſome of their cuſtoms, could reſcue them from the danger, the means would be as completely ſanctified by the end, as the evil would be overbalanced by the advantage.

SHOULD the culture of the potatoe never become ſo general in Bengal, as to anſwer the intended purpoſe, its place might ſtill be ſupplied by the yam, or ſweet potatoe, a vegetable reſembling it in taſte, but far larger in ſize, and, in this country, more eaſily raiſed. It has been cultivated and uſed by the natives

to

to a certain degree, I believe from time immemorial: the cultivation of this plant to a greater extent might athwart the indolence, but could violate no religious prejudice of the Hindoo. Such precautions in his behalf are the more neceſſary; becauſe in all his conduct, he betrays a want of foreſight, and indifference to futurity, that totally diſqualify him from providing in any degree againſt famine, which has ever been the great ſcourge of India.

THAT the reſources promiſed by the bread-fruit tree will prove equal to what might be expected, either from the potatoe or the yam, is more than problematical. The planting of a tree, and the care of its preſervation till it become productive, there is reaſon to believe, is beyond the uſual effort of foreſight poſſeſſed by this improvident race. This neglect, however, muſt be imputed to themſelves; it cannot derogate from the honour of thoſe benevolent perſons, who have attempted to alleviate one of the moſt urgent of their diſtreſſes.

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*Berhampore, Oct. 1797.*

You hardly any where view the cultivation and populouſneſs of India more advantageouſly than in this beautiful iſland, which is ſurrounded by the Hoogly, Coſſimbazar river, and the Ganges. While the Nabobs of Bengal continued independent princes, or were nominally ſubjected to the court of Delhi, they reſided chiefly on this iſland, at leaſt during the preſent century. At Moreſhedabad, the capital, the Durbar was held, and the Engliſh reſident had a kind of fortreſs aſſigned him, and his attendants, about four miles diſtant, near the populous village which bears the ſame name with the iſland. It is ſurrounded by a ſtone wall which ſtill remains, and the houſe within affords elegant accommodations for the commercial reſident of the Company.

THIS gentleman has the ſuperintendance of a conſiderable manufacture of ſilk, for which Coſſimbazar has long been famous. The place is alſo noted for its ſtockings; which are all knitted with wires, and are eſteemed the beſt in Bengal. The price is from twenty to thirty five rupees the *corge*, which conſiſts of twenty pairs.

THIS village, according to Tavernier*, ſends abroad every year twenty two thouſand bales of ſilk, weighing each 100 lbs. of ſilk; making in all 2,200,000 pounds, of ſixteen ounces each. This is probably an exaggeration, yet the quantity of ſilk conſumed by the natives in carpets, ſattins, and other ſtuffs, muſt have been very great.

IT would certainly tend greatly to increaſe the produce of labour, were ſtocking frames introduced, and the natives taught to uſe them. Some enterpriſing European may hereafter enrich himſelf by this meaſure, and at the ſame time benefit the country. For the ſtockings manufactured after the preſent mode cannot contend with the Britiſh either in quality or price; this is ſo palpably the caſe, that the ſuperior claſſes of Europeans ſeldom wear any that are manufactured in India. Some Europeans allege that the ſtockings manufactured in India are more ſoft and elaſtic than thoſe knitted in a frame; this however is not the general opinion.

IN

* Travels in India Part. II. p. 126.

In this branch of the cotton trade, as well as fuſtians, and many articles of the thicker kind, the natives of Bengal are already completely outdone by their rivals in Britain, though only in the infancy of their career. Some perſons here, of no inferior underſtanding, allege that the ſame thing will ſoon happen in every article whatever manufactured of cotton; but by the major part this is regarded as a ſort of rebellion againſt antient opinions, which nothing but an overweening conceit of our own ingenuity could ſuggeſt.

The fact as it ſtands at preſent, undeniably is, that the retail price of many articles in the cotton trade, is higher in Calcutta than at either Glaſgow or Mancheſter: and the boaſt of the manufacturers of theſe towns, that they will ſoon be able to ſell their goods in Bengal, is therefore not altogether void of plauſibility.

There are many cauſes which may long prevent any rivalſhip of the Indian fineſt muſlins. The low price of labour, and the extreme delicacy of touch, which the ſlender Hindoo obtains, by means of his temperate habits, are among the principal. The fineſt muſlins are not now manufactured: when Ali Beg the ambaſſador from Perſia returned from India, he preſented Shah Seſſi with a cocoa nut ſet with pearls, which had incloſed in it a turban of ſixty cubits of muſlin ſo fine that the cloth could ſcarcely be felt by the hand *.

The

* Tavernier's Travels in India.

THE unhealthy ſtate of the adjoining towns of Moreſhedabad, Calcapore, and Coſſimbazar, has of late been ſo alarming, that an enquiry was made into its cauſe by ſome medical gentleman on the ſpot. Among the natives, confined and damp huts, bad water, and defective clothing, certainly contribute to the malignancy of the fever and dyſentery, by which ſo many hundreds of the poorer ſort are ſwept away every autumn.

EUROPEANS reſiding in theſe towns are by no means equally ſubject to theſe diſorders. The Company has erected in their vicinity a regular cantonment capable of lodging two thouſand European ſoldiers; which for ſpaciouſneſs and elegance, are unequalled by any buildings of the ſame kind in Europe. The different erections of the Company for the accommodation of their troops, have coſt ſeveral millions, and may be regarded as ſplendid inſtances of their economical principles giving way to the comfort of their army. The ſums thus expended, laid out at the compound intereſt of this country would, at a determinate period not very remote, have equalled the national debt.

ABOUT twenty miles ſouth of Coſſimbazar lie the celebrated plains of Plaſſey, where Lord Clive at once revenged the cruelty of the Nabob Suraja Dowlah, and eſtabliſhed the Britiſh power in Bengal. At this delightful ſpot the prince had an elegant villa, where he retired to enjoy the pleaſures of the chace.

chace. Woods and jungle then covered thoſe plains which are now beautified with rich crops of cotton and rice; and the tiger has been compelled to retire from the approach of the huſbandman, and to make room for the acquiſition of his induſtry. The princes of Hindoſtan in many points ſeem to reſemble the feudal monarchs in Europe: they are, however, more excuſable in devoting a part of their territory to the diverſion of hunting; the game is much more abundant, and the ſport afforded by the boar, the buffalo, or the tiger, is certainly more manly and intereſting than the purſuit of the fox, or timid hare: yet for theſe, many thouſand acres were laid waſte in every country in Europe, by our ſemibarbarous anceſtors.

Of the inferior kinds of game, the iſland of Coſſimbazar, as indeed every part of India, is full: the hare, the deer, the partridge, and quail, with a vaſt number of birds far ſuperior in beauty and variety to thoſe of Europe, are found all along the banks of the Ganges. What is more remarkable, the aquatic birds of the colder climates are alſo abundant; ſuch as the gooſe, duck, pigeon, and ſnipe. At the ſlow rate you are obliged to travel in a budgerow, you may during the cold ſeaſon, have your table plentifully ſupplied each day with the produce of your own labours, though not an expert ſportſman.

Fish afford another ſupply for the table almoſt always attainable on the Ganges. They are here of many different kinds, and among freſh water fiſhes this certainly may be deemed very palatable as well as wholeſome. Their plenty at ſome ſeaſons is ſo great that they become the ordinary food of the pooreſt of the natives, who are ſaid to incur diſeaſes from too liberal indulgence. The ſmalleſt in ſize, ſome of which appear to be the fry of larger kinds, are all equally acceptable in a Currie, that ſtanding diſh in every native family. What is called the *cook-up*, in the jargon of the country, is often larger than a ſalmon; and the number taken in nets is often very great. The mango fiſh, ſo called from the fruit, which comes then in ſeaſon, are the favourite diſh at every European table during two months, while they are in roe, for they are then filled with a large roe or ſmelt, which the connoiſſeurs reckon a delicate morſel.

For ſeveral hundred miles the alligator and porpuſſes are ſeen tumbling in this large ſtream: and after the numbers that muſt be daily devoured by theſe voracious plunderers of the inferior tribes, a ſufficient quantity ſtill remains to reward the labours of the fiſhermen, who continually ply the river, either for the ſupply of the market, or of their own families. The alligator of the Ganges is from twenty to twenty-five feet long when at its full ſize. I have not obſerved that the populous iſland of Coſſimbazar has attracted this hideous animal in greater

numbers than is found in other parts of the river: it is allowed, however, that he is extremely voracious of human food; a repaſt to which he can be no ſtranger, from the number of dead bodies continually thrown into the river. A ſingle fiſherman in his canoe is not a match for the alligator: he flies at his approach: but as often as the monſter is ſeen by a company in the ſame boat, he, in his turn, is obliged to retreat. The gurreal is a ſpecies of the crocodile ſtill more hideous than the alligator.

So much has nature done for the fertile iſland of Coſſimbazar; and for once the natives have had ſpirit to ſecond her views. The ſoil of this diſtrict is not only rich, but it is the beſt cultivated in this country: crops of every ſort are luxuriant; and Coſſimbazar has obtained the name of the garden of Bengal, which itſelf has long had the appellation of the garden of India.

OF

## OF TRAVELLING IN A BUDGERROW ON THE GREAT RIVER,

*Ganges, Dec.* 1798.

In this part of India journies are moſt frequently performed by water; and by the aſſiſtance of the ſame claſs of boat-men that are employed in the conveyance of goods.

The veſſels uſed by Europeans for this purpoſe, are conſtructed with an air of elegance ſeldom aimed at in any other part of the world. If the affectation of ſplendour is generally the characteriſtic of men of low birth on the ſudden attainment of wealth in every quarter, it is not ſurpriſing that it ſhould ſometimes appear here: it is natural to conceal a humble origin by pompous manners and a ſhow of profuſion.

The travelling Budgerrow uſed on the Ganges is an inſtance of this affectation, the more excuſeable here,

where every convenience is neceſſary to ſupport the effects of the climate. Theſe veſſels are conſtructed with a large airy cabbin, ſurrounded with venetian and canvas blinds; in each there is a ſuite of two or three apartments, which, with additional boats for baggage and ſervants, can accommodate a ſmall family very comfortably for a conſiderable time.

THIS is indeed neceſſary, for ſlowneſs is the great objection to this mode of travelling: three months and a half are allowed a Budgerrow to travel from the preſidency to the higher ſtations; and this allowance, large as it may appear, has ſometimes been inſufficient. The wind and the ſtrong current of the Ganges at certain ſeaſons, are inſurmountable obſtacles to expedition in travelling up the country; and if their time is limited, another mode of conveyance muſt be adopted.

HARDLY any part of the food of a Hindoo is common to him with an European: almoſt every article, therefore, muſt be provided before your journey commences. The Bazars furniſh kids, fowls, eggs, rice, and milk; but it is not ſafe to truſt that your ſupplies will be procured even where theſe articles are to be found. In many places the natives poſitively refuſe to ſell their goods to an European; and their reluctance is ſo remarkable, that I have ſeen a whole village ſhut up their ſhops, and the owners conceal themſelves, on a report of a ſtranger coming to purchaſe from them. Wherever men find it their intereſt

eſt, they will, in general, be willing to ſell: ſome violence or unfair dealing muſt have been the cauſe of this ſhyneſs of the Hindoos. Had they never been annoyed or defrauded, it is probable they never would have refuſed to ſell their commodities.

On a journey where the ſcenery is circumſcribed, and the objects trivial or common, the exerciſe of patience, during a ſlow progreſs, may be difficult; but, on firſt travelling on the Ganges, that mind muſt be ſtrangely conſtructed which cannot exerciſe this virtue. The firſt view preſented to a ſtranger of this grand and venerable ſtream, the conſtant diſtributor of comfort to millions of his fellow-creatures, excuſes with him, the ſimple natives for that exceſs of veneration with which they regard it. All that you have heard of the munificence of the Nile, or of the bleſſings conferred on America, by the large ſtreams that pervade that country, is far outdone by this great parent of rivers.

It affords abundance of drink to the inhabitants of a country which would otherwiſe be parched in the hot ſeaſon; the air from it cools and refreſhes the country: during the rains, it overflows immenſe tracts, which are fertilized by its water, while it enables their cultivators to convey to market part of their produce. It thus adminiſters by far the greater part of his comforts to the Hindoo when living, and furniſhes a ſacred receptacle for his body at his death.

THE natives of Hindoſtan have, for theſe reaſons, venerated the Ganges to idolatry: A mixture of emotion, of ſurprize, pity, and regret, ariſes in the breaſt of an European, when he firſt beholds the aged Hindoos, with their white beards, ſtepping down its bank, to pay their evening devotions, and to bathe themſelves in this hallowed river.

THIS cuſtom, derived at firſt from ſimple gratitude, forms now a ſtated portion of that immenſe maſs of ſuperſtition which prieſtcraft has entailed on the ignorant multitude.

FROM whatever ſource this ceremony at firſt aroſe, it is religiouſly and almoſt univerſally obſerved, not merely by thoſe in the vicinity of the great river and its ſacred branches, but alſo by many at a great diſtance, who, at certain ſeaſons, either reſort to its banks, or ſend for a portion of the purifying water for domeſtic ablution and other purpoſes.

The ſpiritual benefits that are ſuppoſed to be conveyed by the contact of this holy ſtream, I have not learned; its moral and phyſical effects are ſufficiently apparent. In a hot climate cleanlineſs is of the utmoſt importance. Many of the natives anoint themſelves with oil; and were this allowed to accumulate with duſt and perſpiration, they would ſoon become noiſome to each other, and would certainly fall ſacrifices to putrid diſeaſes.

IN

In this view, it is not unpleaſing to obſerve the inhabitants of every village, as you paſs along the river, repairing each morning and evening, to perform in the ſtream this neceſſary luſtration.

While the old men are buſy at prayers and geſticulations, the women and children are equally anxious to purify their ſkin. In doing this they do not truſt entirely to the virtues of the water; but take up ſand and mud from the bottom, with which they rub their bodies as conſtantly as if they were in the act of clearing metal.

It is on theſe occaſions that the women clear up their domeſtic utenſils, which generally conſiſt only of a few earthen and brazen pots: the latter they carry home as bright as gold, ſupported over the haunch by one arm, on the ſhoulder, or the head, according to the caſt. This ceremony ſeems to be performed twice every day, and affords an idea of the cleanlineſs of the natives not unworthy of the imitation of thoſe who deem themſelves their ſuperiors.

Another circumſtance which meets the eye of a traveller, not ſo conſiſtent with our ideas of delicacy, is the promiſcuous intercourſe of the ſexes in theſe bathing parties. It muſt be remembered, however, that the natives go into the river with the whole of their uſual dreſs, and conſequently have no farther inducement to privacy, than on other occaſions.

Some

Some reluctance at being ſeen by ſtrangers, is plainly obſervable; and it is amuſing to remark the different degrees of confidence produced by age, marriage, perſonal attractions, or other circumſtances. Some conceal themſelves from the eye of Europeans, by remaining up to the chin in the water till they paſs; others by getting behind ſcreens and pailings erected for the purpoſe; behind theſe retreats they are ſeen ſpying the traveller with all the eagerneſs of curioſity that has been deemed peculiar to the ſex: *Naturam licet furca expellas tamen uſque recurret.*

One melancholy circumſtance cannot fail to obtrude itſelf upon the mind of him who travels on the branches of this river. From what cauſe does ſo great a portion of this fine country lie in all the wildneſs of ſavage nature? Lord Cornwallis, in a letter to the Court of Directors, declares, that a great part of this country is a mere jungle; and the ſame obſervation muſt occur to every one who has viſited it. On ſome branches of the Ganges you may travel for nearly a day without ſeeing one cultivated field, a houſe, or even a tree. We cannot follow out this idea, without recurring to ſome period of public rapine and devaſtation, of which it is evidently the conſequence. Three Mahratta armies plundered this country for ten years previous to its coming under our protection; and the old men ſpeak of it with horror.

It is true, that were we to judge by the number of boats plying upon the river, or the number of people who, in ſome parts, reſort to its banks, we might form no unfavourable idea of the population of theſe provinces. But the river is here the great highway leading to the capital from all the upper diſtricts; and it is reſorted to not merely for the purpoſe of travelling, but for commerce and religion: and if theſe circumſtances are taken into account, the number of people upon the river falls ſhort of what might be expected in a populous country. In China, the carrying trade and fiſhing, bring much greater numbers to the rivers of that country, than are any where ſeen upon the Ganges *.

The natives of Hindoſtan have probably never been bleſt with a good government: always the victims of the rapacity or ambition of ſome mercileſs tyrant, the gifts of nature ſeem to have been laviſhed upon them to no purpoſe, unleſs to prove the inefficacy of every other advantage, when counteracted by a blind and ſanguinary deſpotiſm.

The Britiſh power has now obtained a more decided aſcendency among them, than has ever been poſſeſſed by any nation; and the effect of this has been the prevention of internal war, by



* Anderſon's account of the Embaſſy, paſſim.

which many of the evils of bad government will in future be done away. The time is approaching, when the exertions of a moderate government will be felt even in the midſt of the regions of deſpotiſm; a period when Aſia, which never framed a rational government for itſelf, will receive one from Europe; and when thoſe arts, which originated in this country, and that knowledge, which it once communicated, ſhall again return with increaſe into its boſom.

SUCH a tendency is diſcernible in the Britiſh goverment of India; not from any chimerical notions of liberty being likely to prevail here; ſuch a circumſtance is happily beyond the reach of probability. Here the metaphyſical jargon of the modern ſchool can never be made intelligible. The conjecture is hazarded on the moderation, humanity, and good ſenſe which ſtill diſtinguiſhes the Britiſh character in this part of the world.

HAPPILY ſuch ſuppoſitions are not merely the offspring of good nature: they have been for ſome years paſt realized, at leaſt in part. None of thoſe irregularities have of late appeared, either in the civil or military government of India, which were wont to characterize former adminiſtrations. That government is now an object of ambition to the firſt characters in the nation: men of the higheſt rank, and of the moſt independent fortunes, may here

here obtain honour, by being uſeful to their country: an acquiſition which cannot be attained in the crooked paths of corruption, or by the more audacious acts of rapacity.

THE

## THE ROADS, AND THE MANNER OF TRAVELLING BY LAND.

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*Plaſſey, Dec.* 1797.

I ENDEAVOURED lately to give ſome idea of the inland navigation of this country, a part of the world ſo abundantly ſupplied by natural reſources, as to ſuperſede, in a great meaſure, the contrivance of art. In a province ſo level as Bengal, canals, were they neceſſary, could be furniſhed almoſt as eaſily as roads: for the latter there is hardly any materials, except pounded brick; which is generally overlaid upon a ſtratum of the ſame materials, in their unbroken ſtate. In the upper country there are, indeed, quarries of free-ſtone, and whin rock, but the carriage of theſe materials to ſo great a diſtance, implies an exertion and an expence far exceeding the preſent circumſtances of the government.

ONE

ONE of the Emperors of the Mahommedan race, planted trees, dug wells, and built inns at convenient ſtages from his capital, to the diſtant parts of his empire. Some remains of his princely undertakings are ſtill to be diſcerned in thoſe Choultries and Serais, whoſe naked walls or ruinous veſtiges are ſtill here and there to be ſeen.

CARAVANSERAIS in the eaſt never implied the idea which we attach to an inn: they conſiſt merely of an empty houſe, where you are permitted to lodge, and are endowed with a certain ſum to keep them in repair. All the accommodation in them is of the traveller's own procuring: his bed, proviſions, and kitchen utenſils are carried along with him; and in a country ſo much infeſted by the tiger, and by wandering robbers, even the protection of a houſe is deemed no ſmall comfort. Forſter is the only European who contented himſelf with the ſimple fare of the native caravanſerais. When this inn is not to be had, the diſconſolate traveller ſhelters himſelf from the noon-day ſun under the ſhade of ſome tree; under the ſame roof he alſo turns aſide to avoid thoſe ſudden and tremendous ſtorms of rain, hail, and thunder, which prevail during the hot months of April and May.

THE Hon. Company, ſince their attainment of ſuch a vaſt territorial poſſeſſion, have completed a road from their capital to Benares and Chunar. This has been done principally with a view of expediting their

their military movements; but is at the ſame time a great convenience to ſuch as travel by land to the upper ſtations. Some of the more remote of theſe are above one thouſand miles from Calcutta, and may be travelled to in nine or ten days. To accompliſh this, however, bearers muſt be regularly laid at the different ſtages, ſo that no delay may be occaſioned by providing them. This precaution is always neceſſary before you undertake any journey whatever; and it is done with great facility, as the terms are generally ſettled by government, and the number of bearers is always greater than can regularly find employment.

It is ſurpriſing with what eaſe a journey of thirty or forty miles is performed here: in the hot ſeaſon you generally ſet out in the evening, and arrive before breakfaſt. If your time do not permit you to reſt, the route is continued during the whole day, at about four miles an hour; nor is this inſupportable; as you may ſleep with ſome comfort in ſuch conveyance.

THE number of bearers, coolies, and other ſervants neceſſary on a journey in this country, is not eaſily credited by a European. Their number is generally equal, ſometimes greater than that of the miles you travel: hence, in performing the journey juſt mentioned, in the ſpecified time, the ſervice of more than a thouſand natives is required. Thus the cheapneſs of labour in Bengal, is almoſt

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in every inſtance overbalanced by the number of hands, which it is abſolutely neceſſary to employ. In England, the ſame diſtance may be travelled in a coach and ſix, with a ſplendid retinue, in a ſhorter ſpace, and at a ſmaller charge.

SHORTER excurſions are performed on horſeback, or in a carriage: this muſt, however, be done either before ſun-riſe, or in the evening. Heat, combined with moiſture, as it is in this country, has effects irreſiſtibly deſtructive to an European conſtitution.

THE horſes uſed by Europeans in Bengal, are either of Perſian or Arabian extraction; and conſequently ſell at a high price. A good horſe of this breed cannot be had under eight hundred rupees, and from that ſum the price riſes ſometimes to two thouſand. They are well formed, light, and ſpirited; but ſeem not in this climate to be capable of great fatigue. Their temper ſeems alſo to be injured, as well as the hardineſs of their conſtitution, by change of country: ſome of them, from being tame and gentle, become ſo remarkably vicious as to prove totally unfit for uſe.

IN the Aycen Acbery ſix different kinds of horſes are ſpecified, that compriſed the immenſe body of Mogul cavalry: in each claſs, the pay correſponded to the ſuppoſed qualities of the horſe, and the Perſian horſe ſtands in the firſt claſs; and the pay of a ſingle trooper is ſtated at ninety-rupees per month, while

while that of the Tazy and Jungley are as low as fifteen and ten rupees. Theſe laſt are the country-bred horſes, and were never in high eſtimation, for immenſe numbers were then, and ſtill continue to be imported from Cabul and Candahar.

THE native Bengalee horſe is thin, ill ſhaped, and every way a contemptible animal: no doubt the meagre ſtate in which they are kept adds greatly to their deformity. In their beſt ſtate they never equal the Welſh or Highland poney, either in figure or uſefulneſs. Mounted by the poorer natives, and woefully compariſoned as they commonly are, they ſeem only fit for the retinue of Don Quixote. As in this country the uſe of horſes in a teem is totally unknown, the worthleſſneſs of the horſe is little to be regretted; but it is ſingular to obſerve that they employ the oxen for all the purpoſes of agriculture, in a part of the world where his fleſh is not an article of food. One would ſuppoſe that in Europe, where the carcaſe is turned to ſuch good account, after their labour is over, that the balance would be entirely in their favour; yet in the late agricultural reports, the reverſe ſeems eſtabliſhed. Cuſtom, perhaps, has had more influence than reaſon in determining this matter in every quarter of the globe.

THE Secretary and Surveyor to the Board of Agriculture, whoſe knowledge of huſbandry is at once accurate and extenſive, have both, if I miſtake not, ſtrongly recommended oxen, in certain circumſtances,

ſtances, for the common labours of huſbandry; and they have been employed on his Majeſty's extenſive farms near Windſor. What confirmation does this practice receive, when we conſider that in the vaſt and populous peninſula of Hindoſtan, they only uſe bullocks, where their fleſh brings almoſt nothing as an article of food, and their hide very little either as a material of manufactures, or an article of commerce!

PERHAPS no writers have contributed more largely, than theſe two gentlemen, to diffuſe among farmers a practical knowledge of their profeſſion. Had providence afforded either of them an opportunity of travelling over this country, their remarks would probably have conveyed more uſeful information, on the ſtate of its rural economy, than all that has yet been written: and that this has not been the caſe, is the more to be regretted, becauſe, if ever a judicious and equitable ſyſtem of regulations, for the government of this country, falls to its lot, it muſt be framed in Europe, and from thence alſo muſt proceed a controul over its execution.

NOTHING can exceed the general indifference, and ignorance of Europeans upon this important ſubject: they commonly embark for India at an early period of life, when they could have no knowledge of a matter ſo complex as agriculture. Their own particular profeſſion, and the unavoidable diſ-

ſipation of ſociety, prevent them ever after from turning their thoughts to it. Knowledge is, beſides, not ſo eaſily attained here, as in Britain, where the weather permits you to travel at all times, and to converſe with every claſs of people. Here an European can go abroad with ſafety only at certain ſeaſons; and though he has learned the language ſo far as to converſe on domeſtic matters, and ſuch as relate to his own profeſſion, yet a new dialect, and a new ſet of phraſes are neceſſary, to talk with a peaſant. After much exertion, expence of time, and labour, and by uſing an interpreter, you may deem yourſelf fortunate indeed, if you can procure the particulars of a farm as accurately even as thoſe given by Mr Arthur Young, after a ſhort converſation with an Engliſh farmer.

To theſe cauſes, united with that indolence and laſſitude, unavoidable in this climate, we muſt impute the ignorance which ſtill prevails in Europe, reſpecting the agriculture of the Hindoos. Europeans here do not underſtand it; and conſequently cannot communicate it to others. After remaining in Bengal for thirty years, you may meet with many who are incapable of even giving the names of the common grain, or knowing for what purpoſe it is raiſed.

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*Kiſſengunge, Oct.* 1797.

THE cattle principally uſed for the teem in Bengal are bullocks. The ſimplicity of means employed to accompliſh the end ſo prevalent in every operation performed by Aſiatics, is nowhere more conſpicuous than in the carts, harneſſes, and draft-waggons of the Bengaleſe. The moſt common vehicle among the peaſants is a Hackery, or two-wheeled cart, drawn by two bullocks: the wheels, not three feet in diameter, are conſtructed in a clumſy and awkward manner: the body of the carriage conſiſts of two bamboos, united by a few bars of the ſame materials; approaching each other the whole length of the machine, till they meet at a point between the necks of the cattle; where they are ſupported by a bar, projecting ſideways over the ſhoulders of both. By this the poor animals are often galled in a moſt ſhocking manner:

manner: a ſuppuration frequently takes place from the friction, which is not, perhaps, perfectly cured during the whole life of the miſerable animal; for, beſides his being condemned to daily toil, he is no ſooner relieved from the yoke in the evening, than the crows ſet upon him, to gratify their voracity by renewing, or rather perpetuating his torments.

THE view of a Bengalee dray-man, urging on his way-worn vehicle, is cloſely aſſociated with the idea of toil and miſery in the mind of every European; and this impreſſion is greatly ſtrengthened by the unſufferable ſtridor of a dry axle-tree continually ſcreeching with the nave of a ſtill drier wheel: nor can you by any argument, prevail upon the liſtleſs owner, to ſave his ears, his cattle, or his cart, by lubricating it with oil. Neither his induſtry, his invention, nor his purſe would admit of this—even though you could remove what is generally inſurmountable, his veneration for ancient uſage: if his forefathers drove a ſcreeching hackery and wretched cattle, poſterity will not dare to violate the ſanctity of cuſtom by departing from their example. This is one inſtance of a thouſand in which the inveterate prejudices of Aſiatics ſtand in the way of their improvement, and bid defiance equally to the exertions of the active, and the hopes of the benevolent.

SIMPLE and inartificial as the hackery certainly is, it is the moſt common vehicle uſed by the natives in conveying bulky and heavy articles by land; it is employed

employed alſo by Europeans, from neceſſity, in carrying brick, mortar, and other materials for houſe-building; in a word, every job performed in Europe, by a cart, carr, or waggon, is performed here by theſe machines; and it is ſurpriſing to obſerve what aſſiduity can perform with inſtruments according to our views ſo totally contemptible. They carry building materials alſo upon ſmall aſſes, as was the practice of the Jews.

ANOTHER implement more uſeful, and, if poſſible, ſtill more humble in appearance, and awkward in its ſtructure—is the Plough. Almoſt the whole cultivation of India is carried on with an inſtrument conſiſting of two or three pieces of wood moſt awkwardly connected, anſwering the purpoſes of our plough. But the land in this part of the country is ſcratched, not tilled: a ſecond, a third, and often a fourth ſtiring, is neceſſary to give even the appearance of tilth to a field.

The ſoil of the upper provinces being light and thin, may probably yield to feeble inſtruments of huſbandry; but in Bengal, where it is deep and loamy to the depth of nine or ten feet, ſurely a more ſubſtantial tillage would be attended with advantage. During the rainy ſeaſon the lands lying under graſs, ſend up a coarſe ſpritty ſubſtance, nearly allied to what is called *bent* in ſome parts of Britain. This graſs, though extremely unfit nutriment for cattle, reſiſts the plough ſo very obſtinately, that I have frequently

quently ſeen four very powerful horſes put to a ſtand by it. What impreſſion, then, upon ſuch a ſoil, can be made by a Hindoſtanny plough, which the driver can lift with one hand to his ſhoulder, and thus carry to the field? The effect is preciſely what may be expected: you frequently ſee a field of this deſcription, after one plowing, appear as green as before; only a few ſcratches are perceptible, here and there, more reſembling the digging of a mole, than the work of a plough.

PATIENCE, however, here, as in other matters, is the conſpicuous merit of a Bengaleſe: he perſeveres ſtirring the ſame field, a ſecond, a third, and a fourth time, till ſomething like mould appears, deep enough to cover the ſeed. This he ſoon commits to its boſom; and is ſeldom diſappointed in reaping a crop, which you would more readily conſider as the product of a good ſoil and climate, than the reward either of the huſbandman's ſkill, or his ingenuity.

As Bengal is, perhaps, more remarkably defective in its breed of cattle, than moſt other parts of India; I cannot leave this ſubject without mentioning a few other animals by which they endeavour to ſupply this want. They have a ſmall ſpecies of horſes, which, from their poor feeding, are ſtill more ugly than ſmall: theſe they employ chiefly in riding, as often as they travel from home. The accoutrements which ſupply the place of a ſaddle and bridle, are perfectly ſuitable to the appearance of the horſe and rider; but

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in no other point of view can they be recommended. Among the Ryuts, to whom this account is meant to apply, any thing like a handſome horſe is a thing of all others the moſt uncommon, except that of meeting with one in good condition. This is the more worthy of notice, as I have not obſerved any work aſſigned the horſe in this part of the country, excepting that juſt mentioned, of carrying his maſter ſuch eaſy journeys as occaſion may require: nor is this, in general, to be aſcribed to the want of paſture: the grounds may, in ſome inſtances, be overſtocked; but this is by no means univerſal. The defect muſt lie, therefore, rather in the *quality*, than the *quantity* of paſture. During the rainy ſeaſon, I apprehend that there is hardly any paſture leſs nutritive than that of the province of Bengal. That ſtrong ſprit, already mentioned, is, at that ſeaſon, the prevailing growth of the whole province. It puſhes up a ſingle ſeed ſtem, which is as hard as reeds, and is never touched by cattle ſo long as any other vegetable can be had. Other graſſes of a better quality are ſometimes intermixed with this unpalatable food; but, during the rains, are of ſo rapid a growth, that their juices muſt be thin, and ill fitted for nutrition.

A VARIETY of circumſtances concur to demonſtrate the inferior quality of the paſture of this province. No perſon ever truſts to it alone in fattening either a bullock or a ſheep. Whatever is intended for the table muſt be either kept upon dry food, or ſerved regularly with gram twice a-day. The caſe

caſe is the ſame with Europeans who keep Arabian or Perſian horſes for the ſaddle: they are fed with the roots of the finer graſſes picked, carefully dug up by a groom, and are ſerved twice a-day with grain. The watery inſipidity of tropical plants is a circumſtance univerſally noticed by Europeans on their firſt arrival in the Eaſt or Weſt Indies. Aſparagus, Cauliflower, Cabbages, and all the eſculent vegetables uſed at the table, are raiſed in conſiderable plenty: but they are comparatively taſteleſs, and conſequently deficient in their nutritious powers.

A CERTAIN quantity of roſes diſtilled in any part of Hindoſtan, will not produce nearly the ſame meaſure of roſe-water or ottre. This point, once eſtabliſhed, various effects flow from it, unfavourable to the cultivator in warm latitudes. His working cattle cannot be kept in fleſh without ſuperior trouble and expence: his beef and mutton cannot be fitted for the market unleſs ſtall-fed; and even that expence when incurred, can never ſecure the produce of the ſame quality with an European grazier. After every precaution, the beef of Ireland, though fed on graſs only, is as ſuperior to that of Bengal, as any two things of the ſame ſpecies can be ſuppoſed; may not this, then, be the cauſe why the native Bengaleſe horſes, cows, aſſes and goats, are found univerſally ſo lean and miſerable, when left to gather their ſuſtenance from the paſture only? The capital, ſkill, and induſtry, of the natives, circumſcribed as they are, muſt prove inadequate to oppoſe an obſtacle, to agricultural

agricultural improvement ſo univerſal, and ſo powerful in its operation Turnips, cabbages, clover, and all the articles of houſe-feeding, are the laſt, and perhaps the moſt capital attainments in Engliſh huſbandry; attainments which we, perhaps, never could have reached, had not a good market for beef, and the value of manure, compenſated in ſome meaſure for the original expence.

How then ſhall the poor Hindoo ſupport the fleſh and ſtrength of his draught cattle with artificial graſſes; while, by his religious prejudices, he is prohibited from uſing beef as an article of food, and is conſequently precluded from a market for thoſe he fattens? While the ſmall value of his produce can hardly defray the charge of the ſorry implements he already uſes, how is he to incur the ſuperior expence of better feeding? To this I know it will be ſaid, that good tillage always pays for itſelf better than bad; and that if a well-dreſſed field and rich crop, cannot defray charges, this never will be done by a wretched tillage, and worſe returns In Europe this reaſoning will in general prove ſound; but in Hindoſtan, where every circumſtance of rent, market, and price are different, it appears highly doubtful. This much is certain, that the richeſt crop of wheat ever grown in England, would not, in common ſeaſons, produce a price in Bengal equal to half the expence of culture. Engliſh huſbandry, and Aſiatic markets ſeem to me in a great meaſure incompatible,

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*Berhampore, Oct.* 1797.

THE cattle employed in carrying the baggage and artillery of the Hon. Company's troops, are almoſt in every reſpect different from thoſe I mentioned lately. They are well proportioned, large in ſize, in high order, and capable of great exertion. What ſhews with full evidence the inſufficiency of the common paſture in Bengal to ſupport working cattle in full condition, government allows all the cattle in the ſervice a certain portion of gram every day, beſides their field graſs; and the carcaſes of ſuch as I have ſeen, are ſatisfactory vouchers for the fidelity of its expenditure.

THESE cattle, however, are probably of the ſame breed with thoſe of the upper diſtricts: they are in general purchaſed at Purneah, and the adjacent country,

try, which is ſcarcely three hundred miles from Calcutta, around which the draught cattle are in the wretched condition already mentioned. Nothing ſurpriſed me ſo agreeably as viewing the Company's bullocks. From the univerſal complaint of the want of celerity in the movements of our army, compared with that of the country powers, I had conceived an unfavourable idea of the draught cattle attached to the Britiſh army. Even in the laſt war, till the Marquis of Cornwallis took the field, Tippoo's troops could ſpread devaſtation all around our camp, without a poſſibility of coming up with him. Had not another plan of operations been then adopted, the enemy, ſecure in the rapidity of his marches, might perhaps as before have baffled our purſuit, and continued to bid defiance to our power. This muſt have been owing to the number, and not to the ſuperior excellence of his cattle. In the midſt of his own dominions, he could command a choice of bullocks, while our cattle could not eaſily be tranſported into the Myſore; and where their loſs by the caſualties of ſervice, in a country ſo diſtant and inacceſſible, was without great efforts irreparable.

THE elephants and camels attached to the Company's force, are equally ſerviceable with the oxen, and are kept in the ſame excellent condition. On the firſt day of every month, the Seapoy regiments, wherever ſtationed, turn out at day-break, with the whole baggage and cattle atrached to them. Their number and condition is then inſpected; allowances

ſtopped

ſtopped for deficiencies; and proper enquiry after the delinquency, if any of the cattle belonging to a corps are unfit for ſervice. This regulation has certainly, while the ſpirit of it is obſerved, an excellent effect: you may conjecture the nature of thoſe practices which gave birth to it: that old maxim, however, is here, perhaps, as juſt as in other inſtances; "*Ex malis moribus oriuntur bonæ leges.*"

On the natural hiſtory of the elephant, it is to you unneceſſary that I ſhould enlarge: the uſefulneſs of that noble animal to an Aſiatic army is becoming daily better known; and of conſequence he is deemed of greater importance. His tameneſs, docility, ſagacity and ſtrength, exceed, in many caſes, every thing that has been ſaid of him by naturaliſts, extravagantly as they ſeem to rate his qualities. When a heavy gun has ſunk the carriage ſo deeply in the mud, that almoſt any force applied in the common way of draught, would infallibly prove ineffectual; the elephant alternately raiſes the wheels with his proboſcis, ſo that the ordinary number of cattle eaſily pull it forward. Here it is art, or ſomething reſembling reaſon, that comes in aid to the unavailing efforts of mere ſtrength.

With all this force and ſagacity, the elephant is ſo tractable as renders him very uſeful for domeſtic purpoſes as well as war. It is common for private gentlemen to keep one or two to go a hunting, or to take an airing every morning and evening. He

is

is then elegantly compariſoned with a howdah, and ſo little vice or even inequality is there in his temper, that he is mounted by the moſt timid even of the fair ſex. Accommodated in this manner, you not only breathe a freer air, amidſt ſultry weather, but bid defiance to the ſtratagem or malice of the tiger, buffalo, and wild boar, with which many parts of the country are infeſted. Among the circumſcribed enjoyments of an European, the diverſion of hunting upon this animal ought not to be omitted. The elephant is ſeldom terrified at the approach of the moſt ferocious animals: he is ſo cool and ſteady amidſt the reports of muſketry, that you may take a good aim from his back. Thoſe who are fond of boar and tiger hunting, are better qualified than I, to do juſtice to the merits of the elephant in this particular, and to them I willingly conſign the taſk of their illuſtration.

But the ſervice for which the elephant ſeems to be moſt peculiarly fitted, and in which he certainly feels moſt gratification, is that of accompanying the retinue of the native princes. Fond to extravagance, of ſhew and magnificence, they ſeldom appear in public without a numerous retinue, conſiſting of cavalry and infantry, with horſes, palankeens, and elephants for their conveyance. Thoſe deſtined for the prince, or any of his favourites, are equipped with ſplendid howdahs, all blazing with gold: the greater part of the body of the animal is covered with embroidered cloth, curiouſly wrought accord-

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ing to their notions of grandeur and elegance. The howdah itſelf, conſiſts of two, and ſometimes three ſmall apartments, and affords complete protection from the ſun. There ſits the monarch, fanned by two attendants, while the elephant moves along with a ſlow, but majeſtic pace, entirely correſponding to the Aſiatic ideas of ſtate and magnificence.

It is on theſe occaſions, that this princely animal, which nature ſeems to have formed for the gratification of eaſtern luxury and ſtate, appears in his greateſt glory. Impreſſed with a conſciouſneſs of his importance in the ſervice of man, and gratified with the ſplendour of his accoutrements, he ſeems ſenſible of poſſeſſing the higheſt rank in the brute creation, and looks down upon the inferior tribes, not with a malevolent, but a dignified contempt.

Whether the elephant be employed for the purpoſes of war, of hunting, or of ſhew, his food is ſimple, and eaſily procured. He is fond of the leaves, and ſmaller branches of trees, which it is the buſineſs of one, or two of the natives to provide for him, while he lifts them with his trunk to the perſon ſeated on his back; their wages is in this article the only expence *. As the quick vegetation of trees, as well as of the graſſes, and eſculent plants, renders their juices thinner and leſs nutritive, grain is generally

* His allowance of grain is ſixteen ſeer.

rally added to this natural food of the elephant. Sixteen ſeer, or thirty Engliſh pounds, is the Company's allowance to each for one day: in ſeaſons of a common degree of plenty, this amounts to ſo very moderate a ſum, that ſeveral of the ſubaltern officers in the Bengal army, keep them for exerciſe or amuſement.

THE taking of this animal is attended with conſiderable difficulty, and ſometimes with danger. A number of the natives are employed driving them, or frightening them, by alighting fires, into a plain which is intended to be the ſcene of their captivity. Here there is a large incloſure, leading to others of ſmaller dimenſions, till they are at laſt puſhed into one ſo narrow, that will neither admit of their turning backwards, nor allow them to proceed. To facilitate this progreſs, they make uſe of females already tamed, who entice them forwards, by ſigns to them too unambiguous to be miſunderſtood. The elephant is no ſooner ſecured in his narrow cell, than ropes are gradually wreathed around his body and legs, which preclude any danger of his eſcape. By feeding and gentle uſage, he, in a ſhort time, admits his keeper with great complacency: thus the ſagacity of the elephant induces him to ſubmit with a good grace, to a bondage which a cunning ſuperior to his own, has put it out of his power to avoid. The India Company are ſupplied with theſe uſeful animals by a contract with certain individuals, who make it their buſineſs to purſue and captivate them.

WHAT

WHAT is remarkable with them is, that thoſe which are taken old, are more perfectly tamed than the young. The latter, from the ſmallneſs of their ſize, and the conſequent impotence of their reſentments, are indulged in playful familiarities with their keepers, which neither the ſluggiſhneſs of age, nor the maturity of their faculties, can ever afterwards induce them to lay aſide.

THE ſize, habits, and appearance of theſe animals make a ſtrong impreſſion, when firſt viewed by an European. When the king's troops firſt had occaſion to ſee them falling proſtrate on their belly, to facilitate the riders' aſcent upon their backs, and then riſe at a word from the native guide, who is placed immediately behind the ears, upon the neck; they teſtified at once their admiration of their ſagacity, and terror at their ſtrength and enormous bulk.

THE Pheel Kaneh (Elephants' Stables) conſtituted a great object of the imperial care; and many minute and complex regulations were framed for the government of this department. According to their qualities, age, and ſize, theſe animals were claſſed in a variety of different ranks, with an allowance of proviſions and of men to each claſs, proportioned to the wants and importance of the animal. The elephant is chiefly uſed by the natives of India for riding, war, or in hunting, or fighting at the imperial amuſements.

THEY

They were formerly taken in many more diſtricts than at preſent, which affords a preſumption of the increaſe of population: the great number maintained at the court of Delhi, and at the palaces of the vice-roys, muſt have proved a ſerious waſte of proviſions. The full complement of elephants required to be kept by a munſubdar of the rank of ten thouſand, was two hundred; and allowing the maintenance of each elephant to be equal to that of forty men, the ſubſiſtence of eight thouſand perſons is required for the ſupport of a part only of the equipage of a ſingle officer; if to this be added the due number of camels, horſes, bullocks, &c. the retinue of this officer is, of itſelf, equal to a very large army.

The account of this animal given by Abul-Fazel, is founded on more ample experience than that of any of our naturaliſts, and would have furniſhed M. de Buffon with more accurate knowledge than he ſeems to have poſſeſſed on this ſubject. The natural life of the elephant he ſtates to be an hundred and twenty years; the female goes with young eighteen lunar months; in general ſhe has but one at a birth, but ſometimes two. The young one ſuckles five years, after which time it feeds upon vegetables. At every ten years of its growth it undergoes ſome change, and has a different name; the price riſing from 100 to 10,000 Rs.

THE accoutrements and harneſs * of the elephant are very numerous and expenſive; for the loſs of them, and for any injury happening to the animal, the keepers are amerced or puniſhed, ſometimes with death. For each of the large-ſized elephants four keepers are allowed, at ſtated wages; viz. a Mehawt, Buy, and two Mayhets.

OF

* Above thirty articles are mentioned in the Ayeen Acbery, with the fines for loſing or deſtroying them.

## OF THE CAMEL, AND ITS USES IN THE ARMY.

*Ganges*, 1797.

THE utility of the elephant, as a beaſt of burden, in Aſia, highly as it is rated, is, in many reſpects, ſurpaſſed by that of the Camel. Inferior only in bulk and ſtrength, this patient ſervant bears fatigue, hunger, and watching, to a degree ſcarcely credible by thoſe who never witneſſed his toils. The weight he bears muſt bear ſome proportion to his ſize and ſtrength, which, in different individuals is various; but, when not overburdened, he will march without meat or drink, for days together. It is his uncommon power of abſtinence from drink that has recommended the camel, ſince the earlieſt ages, as the moſt proper animal for conveying proviſions and merchandiſe, in thoſe long periodical expeditions of the caravans, that make ſo conſpicuous a figure in the hiſtory of commerce and religion in many parts of the

the Eaſt. In travelling through the parched deſarts of many parts of Aſia, you can procure no water for many days; no tree, ſhrub, or trace of vegetation, is to be diſcerned. On all ſides you are ſurrounded by an over-powering heat from the glare of the rays of the ſun reflected from myriads of bright particles of ſand; or are enveloped in boundleſs clouds of duſt where theſe particles are drifted by the wind into the air.

EVEN thoſe comparatively ſmall banks of ſand, that are left naked by the ſubſiding of the Ganges, ſometimes appear like a cloud of ſmoke, and are a ſuffocating annoyance to the traveller during a high wind. Theſe, however they may give credibility to dangers ariſing from travelling through the unbounded deſarts of the interior country, exhibit but a faint image of the horror, ſtillneſs, and deſolation, which the aſpect of nature aſſumes in thoſe dreary regions.

WITHOUT the miniſtry of the camel, "the ſhip of the deſart" (as he has been denominated), or ſome animal equally patient and abſtemious, thoſe parts would prove impervious to the human race.

THOUGH no part of Hindoſtan is equally parched and ſterile with Arabia and Syria, yet the camel has been uſed as a beaſt of burden from time immemorial: and in reading the patriarchal hiſtory, you are ſurpriſed at the coincidence and ſimilarity of the articles enumerated in the wealth of Abraham or of Job,

Job, and that of a Hindoo Rajah: each have their he-aſſes, and their ſhe-aſſes; their camels, and their goats.

WHEN the Eaſt-India Company acquired territorial poſſeſſions in this peninſula, and an army to protect them, they, in this reſpect, wiſely accommodated their regulations to the cuſtoms of the country, and the neceſſities of the ſervice. A number of camels, as well as of elephants and bullocks, are attached to each corps of their troops. So neceſſary indeed are they found, that many of the officers, before a march, ſupply themſelves with extra camels for their own accommodation. Their quietneſs and docility renders them peculiarly fitted for carrying tents and baggage; and, in general, the ſlowneſs of their progreſs is no inconvenience in the march of an Indian army. During its continuance the troops are put in motion at, or before day-break, and reach their ground to breakfaſt, at nine, ten, or eleven in the forenoon, according to the diſtance intended to move. By diſpatching the cattle early, the tents and baggage are pitched on the ground to be occupied, and breakfaſt prepared for the troops as ſoon as they arrive. When in the vicinity of an enemy, every circumſtance muſt vary with the occaſion; but as often as this is not the caſe, an eaſtern army will march without any inconvenience during the cold ſeaſon, in the manner I have deſcribed, to a diſtance of two thouſand miles. A great number of purveyors, coolies, bullock-drivers, and other camp-followers, are neceſſary: The rapidi-

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ty of an Aſiatic march, to an European, muſt appear comparatively ſmall: but theſe inconveniences, are partly from cuſtom tolerated, and partly from neceſſity unavoidable. An officer, even of inferior rank, finds the ſervice of between twelve and fifteen natives neceſſary to accommodate him; the grain, baggage, and proviſions of the private ſoldier require a ſimilar proportion of hands for their tranſportation. Thus a number upon the whole, perhaps, equal to three or four times that of the effective troops are always found in the retinue of an Aſiatic army.

When the Marquis of Cornwallis took the field, during the concluding campaigns of the late war, the whole number of his followers amounted, it is ſaid, to near half a million: this nobleman is the laſt officer in his Majeſty's ſervice who would in any inſtance, give way to that inefficient expenditure which their vanity and oſtentation has ſometimes extorted from our commanders in India. Theſe paſſions are infectious in the Eaſt; and to them the native princes, with a childiſh effeminacy worthy of their character, have almoſt univerſally ſacrificed their true importance and power.

The detachment I now accompany, proceeds by water, on a march towards the upper provinces, and though it conſiſts only of a few hundred men, 1800 natives are ſcarcely ſufficient to drag our boats againſt the weight of the ſtream.

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THE number of men neceſſarily attached to an Indian army, gives a degree of credibility to the accounts tranſmitted to us of the forces and retinue of Artaxerxes, when he invaded the ſmall republics of Greece, and rendered their valour immortal by the defeats which he ſuffered. The population and reſources of that monarchy were unqueſtionably great; and if an army of near two hundred thouſand men followed the great king, this will account for the vaſt hoſts, with which, the Greek hiſtorians inform us, he intended to deſolate Europe. The epithet of Mendax Græcia, which with the Roman ſatiriſt has loaded that brave and ingenious people, may, therefore be found to contain more malice than truth; for the the Zemindary troops, or militia of India in the time of Acber, are ſtated at four millions in the Ayeen Acbery.

THE motion of the elephant, the driver, ſeated immediately behind his ears, can direct or accelerate as he pleaſes by means of a prong of ſteel: but hardly any application will give rapidity to the camel: he is in general accuſtomed to travel under a load, and his whole habits and conſtruction diſqualify him for ſpeed. His limbs are indeed long, and robuſt; but they are unwieldy, and ill-proportioned. The officers upon a march, therefore, generally prefer a horſe; every one of which lays him under the neceſſity of keeping, at leaſt, two additional ſervants, a graſs-cutter (graſſiah), to gather his proviſion, and a groom (ſyce), to keep him in order. So obſtinately does every

every native of India adhere to his little ſphere of duty, either from indolence or religious prejudices, that you may as well attempt to remove a mountain, as perſuade the ſervant who dreſſes your horſe, to cut his graſs, or *vice verſa*. Nor does this prevail in one part of menial ſervice only; it pervades it throughout.

SOMETHING here, I will allow, muſt be imputed to the vanity of Europeans; which, in ſome inſtances, reduces them to the pitiful condition of craving gratification from the number and buſtle of their attendants. When this is the caſe, it is eaſily diſcovered; for it courts your attention: the number of native ſervants employed nine times out of ten, is owing to themſelves, and not to their maſters. To the latter, they are always an expence, and too often a vexation. After the uſual number of them is provided for your baggage, your cattle, and your own attendance, you are far from being either ſo independent, or ſo comfortable, as a ſingle foot-boy in Europe can make you. Sometimes their officiouſneſs diſguſts, their negligence and indolence ſtill oftener frets; while perverſeneſs and diſhoneſty fail not to provoke the maſter whoſe temper is not under uncommon control.

FROM theſe particulars you will readily conceive, that travelling is in this part of the world unavoidably expenſive; liberal as the pay of the army appears, a ſubaltern on duty cannot make any conſiderable ſaving from his allowance. Inſtances of folly and

and extravagance then no doubt often are; nor is it our buſineſs to vindicate them; but in Europe, I know, it is too often the cuſtom to calculate according to their own wants, by their own ſcale, and, conſequently, to blame as extravagant diſſipation, that very conduct which, in the ſame circumſtances, they would themſelves be infallibly compelled to adopt.

THE daily expence of a horſe, added to the intereſt of his original price, the camel, and his keeping, with the wages of fifteen ſervants, are heavy items monthly againſt a ſubaltern's pay; and it is certain, that he could not be equally ſerviceable without moſt of theſe auxiliaries; without many of them, he could be of no ſervice at all.

YET many ſubalterns in Bengal have accumulated money; by parſimoniouſly ſaving every poſſible ſum, and by debarring themſelves of many comforts which the climate certainly requires.

THE general features of the European character in India is certainly profuſion: when the oppoſite temper prevails, it is indulged without any bounds. Greater examples of avarice and parſimony cannot, perhaps, any where be produced than this country can furniſh, and theſe are moſt commonly among the rich. A perſon worth one hundred thouſand pounds, has been known to linger in the country for the ſake of accumulating a little more, evidently

at the riſk of his life: often life itſelf has been ſacrificed to this irreſiſtible appetite; which, like ſome diſeaſes, grows by indulgence.—

*Creſcit indulgens ſibi dirus hydrops.*

OF

## OF THE BUFFALO, AND THE DRAUGHT CATTLE OF HINDOSTAN.

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*Mongeer*, 1797.

In giving an account of the cattle of Bengal, the buffalo ought not to be omitted. This animal, in its wild ſtate, is found in almoſt every part of the continent, and in moſt of the iſlands. This is in all probability the aboriginal race of horned cattle, from which the various diverſities have been produced, during many ages in their ſtate of domeſtication. In Bengal, great numbers are found, both tame and wild. In the latter ſtate, they are perhaps the moſt formidable enemies you can meet upon a journey.

They are generally jet black; and characteriſed by long ſemicircular horns, which inſtead of ſtanding erect, or bending forward, are laid backwards upon the neck. Theſe horns which, from their awkward

awkward poſition, you at firſt may imagine inoffenſive inſtruments, are, in reality, moſt formidable weapons. If you either come upon the buffalo by ſurpriſe, in a ſituation where he cannot eſcape, or offer him any provocation, he makes a violent attack, with his ſnout placed between his forelegs, and his horns pointed forwards. If you cannot eſcape the puſh, by inſtantly leaping aſide, you are caught upon his horns, and infallibly torn to pieces. So quickly does he turn and renew his attacks, if he fail in the firſt onſet, that there is no hope for the devoted victim of his fury, if he cannot reach a tree. Even when the traveller has been thus fortunate, ſo implacable are the reſentments of this animal, that many inſtances are known where he has remained for ſeveral hours at the root of the tree, expreſſing his rage and diſappointment. One gentleman, who fortunately eſcaped in this manner, aſſured me, that his purſuer kept him a cloſe priſoner upon a tree for a great part of a day; till he at laſt bethought himſelf of throwing down his coat; upon which, having ſatiated his rage, the buffalo diſappeared.

With all this hoſtility, the buffalo is, ſtrictly ſpeaking, neither a predatory, nor an offenſive animal. He is in general rouſed by ſome provocation, or inſtigated by the principle of ſelf defence, before he commences an attack upon man. Happy it is for the poor Bengalees, that this is the caſe; for his immenſe ſtrength enables him, when they fall in his power, to toſs them in the air with as much facility

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as he would a cat: and if you may judge by the terror of the natives on the appearance of a wild buffalo, you muſt conclude that it is not uncommon for them to fall a ſacrifice to his reſentment. I had lately an opportunity of ſeeing one of them ſurpriſed on the river ſide, by my dandies, (boatmen) in his retreat among thick graſs above ſix feet high. The poor ſailors inſtantly precipitated themſelves from the bank into the river, with ſcreams of terror. Happily for us, the animal himſelf ſeemed to have been agitated by ſimilar ſenſations, for he ſcampered away with great ſpeed to a conſiderable diſtance, before he even ventured to look behind him.

NOTWITHSTANDING theſe unpromiſing habits, the buffalo is fully capable of domeſtication. I have paſſed through whole herds of them, in the diſtricts of Purneah, and Kiſſengunge, that ſeemed as perfectly tame, as the other cattle which grazed along with them. They are employed in carrying goods, for which their ſtrength renders them more ſerviceable than an ox. They are kept in herds for the ſake of their milk, from which is made Ghee, that univerſal article of Hindoo diet.

THE buffalo is hardly any where employed in a teem. His food is more coſtly than that of the bullock; and though his ſtrength be far ſuperior, that circumſtance is perhaps of no great moment in the preſent ſtate of the Indian plough, which, from appearance,

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pearance, might be drawn by two goats as well as cattle.

THE milk of the buffalo is of a rank taſte, and the butter bad; what is procured in the Bazar is generally of a very inferior quality, and is perhaps the produce of this ſpecies, as frequently as of the cow.

A mixture of the buffalo, with the common horned cattle of the country, gives a pleaſing variety to the herd of a farmer. They are all black, while the common cows and oxen are five ſixths of them white, with a mixture of iron grey, which deepens in its colour towards the face, and the extremities of the legs and tail. Theſe cattle, ſeen at a diſtance in the fields, are generally miſtaken by Europeans on their firſt arrival, for flocks of ſheep, from their white colour, and diminutive ſize. It is from the laſt circumſtance, that ſome conclude that their place in the yoke might be advantageouſly ſupplied by the buffalo; for at the ſeaſon I now write, ploughs, and cattle, pitiful beyond all deſcription, are daily ſeen by the ſides of the river, ſcratching the fields in a manner more reſembling the paſtime of children, than the labours of farmers, who are to provide the food of millions of inhabitants. With better cattle, and more ſubſtantial implements, a much more effectual tilth would be given the ſoil, than by five or ſix ſtirrings in the preſent method. But for the preſent management hardly any expence is incurred at all.

ail. The plough is made by the farmer from the firſt tree that ſuits his purpoſe: were it conſtructed by a tradeſman, or were his cattle of a better breed, or better fed, money muſt be advanced, which he cannot afford.

THE beef, hide, and horns, of ſo large an animal as the buffalo, were he within the reach of an European market, would prove valuable articles of commerce. Here neither of theſe articles are of much conſideration. The hide of an ox is ſo cheap, that you have it tanned, and manufactured into ſhoes, at half a rupee, about 1s. 3d. per pair; by the few natives who wear leather ſhoes, they are procured much cheaper.

SOME Europeans have lately engaged in the tanning of leather, and the manufacture of ſhoes, apparently with great ſucceſs. They produce theſe articles nearly of equal quality, and ſo cheap as nearly to preclude the ſale of European inveſtments of this commodity.

THE common draught cattle of India are diſtinguiſhed by the peculiarity of a large hunch, or protuberance, above the ſhoulders, upon which the yoke reſts. In ſize, they are ſmall, but well proportioned, and ſingularly active. Thoſe kept for travelling coaches are capable of performing long journies nearly in the ſame time with a horſe. The bad condition, and pitiful plight in which they are often kept

kept by the poor Ryuts, is not able wholly to deſtroy theſe excellent qualities of the Bengal cattle: they work patiently in the yoke, beneath the vertical ſun, for many hours, and upon the moſt wretched food, chaff or dried ſtraw.

## OF THE BREED OF SHEEP; AND TREATMENT OF THE HOG.

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*Chandernagore,* 1797.

AFTER deſcribing the working cattle of the Hindoos, and ſome of the more uſeful of their domeſtic animals, I cannot cloſe this ſubject without mentioning their breed of ſheep, and goats. Theſe animals are both reared, and in very great abundance, if you make allowance for the ſmall conſumption of them ariſing from thoſe circumſtances in their ſuperſtition, which I have already mentioned.

THE ſize of the Bengalee ſheep is ſmall; his figure lank and thin; and the colour of three fourths of a flock, is black or dark grey. Hence in Aſia, the colour of cattle is in general exactly the reverſe of that in Europe; what we term in England, a herd of black cattle, is here white; a flock of ſheep,

which at home is generally white, here is dark grey, or black.

THE quality of a fleece of wool, in this country, is worſe, if poſſible, than its colour: it is harſh, thin, and hairy, in a very remarkable degree. No part of cloathing, or domeſtic furniture, ſo far as I have obſerved, is manufactured of wool, except a coarſe kind of blanketting, which ſome of the dandies, and people in the upper country, uſe during the cold ſeaſon, as a wrapper in the night: this luxury is, however, by no means general, or even common; though there is reaſon to believe that every native, did his income admit of it, would wear a blanket at certain ſeaſons, and at all times would lie on one. I know nothing with which you can compare the India fleece, unleſs that hairy ſtuff, the refuſe of marketable wool, which the farmers were in ſome parts of Scotland wont to make into a cloth for covering their malt kilns.

THE breed of ſheep, which I had an opportunity to examine on the Coromandel coaſt, between Bengal and Madras, are ſtill of an inferior quality, both with regard to the fleece and carcaſe. From their coarſe hairy covering, and their thin and incompact ſhape, one is led to conjecture that they muſt have ſome affinity to the goat or the deer. They preſent the exact figure of what might be ſuppoſed would be poſſeſſed by an intermediate race between the ſheep, and thoſe animals. Two or three of them may,

may, in ſome parts, be purchaſed for a rupee; and though they may be of conſiderable uſe to a ſhip's company after a long voyage, they are otherwiſe a very unprofitable purchaſe. Hardly any thing ſhort of abſolute want can make an Engliſhman reliſh ſuch mutton, if it can be called by that name. The Europeans, in theſe parts, frequently procure a ſupply of Bengal mutton, indifferent as it is, from the impoſſibility of making a comfortable meal of that reared in their vicinity.

THERE are in Bengal a few ſheep with four horns, two on each ſide of the head. This is a regular diſcriminating mark of the ſpecies, and not a *luſus naturæ*. Theſe are ſuperior in ſize, and better proportioned than the common kind; but their number is ſmall.

IN this reſpect, the province of Bengal poſſeſſes a manifeſt advantage over moſt other parts of India; for though you there procure your mutton from the Ryut ſmall in ſize, and in miſerable condition, by good keeping for eight or twelve months, you ſupply yourſelf with mutton, which in richneſs and flavour, is not inferior to the graſs-fed mutton in Europe.

IT is in this manner that the officers of the army, and the civil ſervants of the Hon. Company, ſupply themſelves at all the remote ſtations, both with beef and mutton. The cattle are regularly fed with gram twice

twice a day, by their own ſervants: a herdſman is hired to ſuperintend this buſineſs, whoſe picturesque figure, leading his flock around the cantonments, recals to your imagination the venerable ſimplicity of the patriarchal ages: he goes before his flock, and regulates its motions by his call: "The ſheep know his voice, and follow him."

THUS are the officers of the army provided, if not with luxuries, at leaſt with the comforts of the table; while an innocent amuſement is afforded them, which contributes its part to animate the liſtleſſneſs of an Indian life. Circumſtances of this kind, however minute or contemptible they may appear in deſcription, have a greater influence on the moral character and happineſs of men, than we are commonly aware of. A numerous ſociety of young men, who have not been early bred to literary purſuits, experience the ſad *tædium* of the military life during peace, which they are ever in danger of diſſipating by exceſs, gaming or extravagance, indulgences pernicious every where, but particularly fatal in every part of India. The fleſh of the goat is not uſed as an article of food, unleſs in ſome few inſtances, where it is ſurreptitiouſly introduced in place of mutton, by a connivance among the native ſervants. The kid, however, is a very common diſh; and it is the only one which the Hindoos produce in tolerable condition. Here nature produces a ſufficient ſupply of proper food in the milk of the dam; and all required of the keeper is ſufficient honeſty to prevent

vent him from abſtracting its ſupport. Goat's milk is commonly uſed at the tea and breakfaſt table; and if by that article the native can make a ſingle anna, his virtue will ſeldom enable him to reſiſt the temptation, and do juſtice to the kid, even where he is the owner himſelf, and to receive a price proportioned to its quality. This peculiarity characteriſes the natives of every deſcription: perfect children in reflection, a preſent gain, however trifling, in their eſtimation, outweighs a future good, though equally certain, and of ten times the amount. A Hindoo, though reduced to the laſt farthing, if he has curry and rice for the preſent day, will not work for the ſupply of the next. "Sufficient to him is the evil of the day;" he "takes no thought for tomorrow."

THE goat, which is every where a lank and ill-conditioned animal, approaches nearer to the European ſtandard, than perhaps any other animal in Bengal.

NEITHER the horſe, the ſheep, nor the goat, have any peculiar ſanctity annexed to them by the Braminical ſuperſtition. It is otherwiſe with the cow; which in India is every where regarded with veneration, and is one object of peculiar worſhip. Repreſentations of objects are made upon the walls with cow dung, and theſe enter deeply into their routine of daily obſervances. The ſame materials are alſo dried and uſed as fuel for dreſſing their victuals: for this

this purpoſe the women collect it, and bake it into cakes, which are placed in a poſition where they ſoon become dry and fit for uſe.

The ſacred character of the cow probably gives this fuel a preference to every other, in the imagination of a Hindoo; for it is uſed in Calcutta, where wood is in abundance. M. De Voltaire has diſplayed at once his ſuperficial acquaintance with Aſiatic manners, and his propenſity to ridicule, in his attempt to vilify the ſacred writings, on account of ſome expreſſion relating to this ſubject, uttered by the Prophet Jeremiah.

On certain occaſions, it is cuſtomary for the Hindoos to conſecrate a bull, as an offering to their deities; particular ceremonies are then performed, and a mark is impreſſed upon the animal, expreſſive of his future condition to all the inhabitants. No conſideration can induce the pious Bengalee to hurt or even controul one of theſe conſecrated animals. You may ſee them every day roaming at large through the ſtreets of Calcutta, and taſting rice, gram, or flour in the Bazar, according to their pleaſure. The utmoſt a native will do, when he obſerves the animal doing too much honour to his goods, is to urge him, by the gentleſt hints, to taſte of the vegetables or grain, on his neighbour's ſtall.

A remarkable example of Oriental ſuperſtition occurs in the treatment of one of the moſt uſeful domeſtic

meſtic animals, the hog. The Mahommedans, whoſe numbers are conſiderable in almoſt every part of Hindoſtan, are prohibited from eating this animal by their law; and however ſlightly they regard its moral precepts, like every ignorant people they pay implicit veneration to its ceremonial and ſuperſtitious injunctions. In rearing this uſeful animal, they are out of the queſtion. To the far greater part of the Hindoos, this economy is denied by a prohibition ſtill more pernicious, becauſe more general, which forbids the higher claſſes the uſe of every terreſtrial animal, in the claſs of quadrupeds, as an article of food. Some there are, I am aware, of the dregs of both people, who either from miſdemeanours of their own, or from hereditary meanneſs, are deſtitute of all rank, and conſequently are free from the tyranny of opinion. Theſe may eat pork, or any kind of fleſh, but unfortunately they are unable to pay for it; for they are in general employed in the loweſt menial offices about Europeans, and ſubſiſt on what is carried away from their tables, after it has been rejected by the Portugueze, and upper ſervants. In this inſtance, then, the farmer is deprived of a market for one of the moſt wholeſome, and the moſt eaſily reared of all kinds of animal food. What relief might not be found, during a ſcarcity of grain, by reſorting to pork, where fruit and other nouriſhment for it is ſo abundant!

Till lately, a ſimilar prejudice againſt this kind of food was entertained in ſome parts of Scotland: but the

the knowledge lately diſſeminated through that kingdom, by the means already mentioned, has in part already done it away. A judicious farmer, in that country, lately told me that he had begun to rear ſwine upon the refuſe of his dairy and of his grain; and to fatten them with potatoes or meal as opportunity offered. On a compariſon of his profits in this method, with thoſe made by the ſame articles ſent immediately to market, he found a very conſiderable balance in favour of feeding; a practice which he has ſince continued.

ASIATIC prejudices are more deeply rooted, than thoſe of our countrymen; and where ſupported by ſuch numbers and intereſt, we have not the ſame means of removing them. Herds of ſwine I have met with in Bengal; but they are in ſmall numbers, and merely intended for the Europeans and outcaſts, the former of whom bear not, perhaps, the proportion to the whole of the inhabitants, of one to a thouſand.

THERE is hardly any degree of ignorance, or of indolence, at all compatible with a ſtate of ſociety, that is not adequate to the rearing of this uſeful animal. In many of the iſlands of the South Sea, it was found a valuable acquiſition to our ſhip's ſtore of proviſions, and conſtituted the only animal food known to the natives.

No

No country is perhaps more productive of nutritive plants and fruits, than Bengal; and these, in the hands of the patient and industrious natives, might be applied to the feeding of pork with the happiest success, could the chains of their superstition thus far be broken.

The sugar cane is remarkably nutritive; and while it is in season, the wild hog is in excellent order, as well as flavour. What loss is sustained from the refuse of a sugar farm being applied to other purposes, or perhaps lost!

Though the artifices of the priesthood have effectually debarred the Hindoos the use of the hog, no contrivance has yet been fallen upon to free them from the destructive ravages of that animal in its wild state. In some districts, the jungles are much infested by them; from whence they issue forth in the night, and prey upon the rice fields, where the quantity of food they trample down is much greater than what they devour. Thus the poor Hindoo is condemned to have his sustenance, earned by the sweat of his brow, continually wasted by an animal which providence has fitted, of all others, the most liberally to contribute to his support.

On travelling through the country you see a sort of platform raised upon bamboos, and covered with thatch, where the proprietor of the rice field stations a servant to watch the incursions of the wild hogs

during night. This cannot be done without a conſiderable trouble and expence, for you ſometimes ſee ſeveral of theſe erections in the ſame field: yet there is reaſon to apprehend that the owner, after all his precautions, is annually robbed to a conſiderable amount.

OF

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*Sootee, Nov.* 1797.

THE predatory animals, among the quadrupeds, birds, and inſects, are extremely numerous in every part of India. Their depredations are often hurtful, and always vexatious; but their preſence in a warm climate, in any conſiderable degree populous, ſeems neceſſary.

THE Jackal holds the moſt conſpicuous place among this tribe, either conſidered with regard to his annoyances or his utility. The figure and general habits of this animal are ſufficiently deſcribed in every treatiſe of natural hiſtory: what is remarkable of him here, is the familiarity with which he enters the largeſt cities; and the mournful howlings by which he interrupts the ſilence of the night.

EACH

EACH night, about twelve or one o'clock, he enters the ſuburbs of Calcutta, and ſoon traverſes every lane and ſquare of that capital. The noiſe he makes is ſtill more loud and mournful than the howling of the dog: at certain intervals, it is conſtantly renewed during every hour of the night, and its entire ceſſation is a ſure ſymptom of the approach of day; a circumſtance which, probably, would not have eſcaped Dean Swift, in his deſcription of the morning, had he ſeen this part of the world: however this be, the ſilence of the jackal on Aurora's approach, is a fact yet unſung, and remains in that ſtore of untouched materials which is deſtined to decorate the works of ſome future poet.

THE principal characteriſtic of the jackal is his voracity; which permits little or no diſcrimination in the choice of food. This is probably the chief ſecurity of the hen-rooſts, which he never robs, if his gluttony can be ſatiated by the filth and carrion of the bazars and ſtreets. In every large town more or leſs of ſuch impurities are collected, and would of neceſſity ſoon taint the air, in a climate ſo hot as India, were it not removed by theſe ſcavengers provided by Nature.

THE jackal wanders through every village and farm-yard, as punctually as the ſtreets of Calcutta; but there his cravings are more importunate as his ſupply is leſs conſiderable. It is ſaid that the howl which this animal inſtinctively utters, is received as a ſignal

ſignal of purſuit, by every other in the ſame vicinity; and by a continual acceſſion of numbers, they are enabled to run down the hare, or the wild pig; becauſe the place of ſuch as become fatigued, and are obliged to deſiſt from the chace, is ſupplied by freſh aſſiſtants, who in time accompliſh the work of death. Of this fact I have no evidence, and cannot vouch its truth.

THE Pariah Dogs roam night and day about the dwellings of the natives, and perform for them, with leſs noiſe, the ſame friendly offices of the jackal. To this animal we have nothing correſponding in Europe, excepting in the ſtreets of Conſtantinople. It is perfectly tame among the natives, and enters their houſes, at all times with the familiarity of a domeſtic: to Europeans his experience renders him more ſhy, as he is often purſued by the young cadets for want of other ſport. Such a number of dogs prowling about the ſtreets, and under no confinement, becauſe claimed by no perſon, renders canine madneſs a matter of ſerious apprehenſion in Calcutta. When ſymptoms of hydrophobia appear, the whole race of pariah dogs is proſcribed; and the natives, whoſe humanity upon almoſt every occaſion yields to their love of money, kill great numbers, for two anas a dog, the price put upon each head.

THESE dogs are ſaid to be very uſeful, in picking up filth and nuiſances from the ſtreets. They are generally mangy: in ſome the diſeaſe puts on ſo foul and

and morbid an appearance, as fully evinces the groſſneſs of their appetite, and the impurity of their food. It is certain, that the human bodies thrown into the river, are not ſecure from their voracity.

THE pariah dog ſeems, from its external figure, as well as its habits, to have an affinity to the jackal. It is not improbable, that an illegitimate commerce may be ſometimes carried on between theſe different branches of the canine tribe. This circumſtance is ſuppoſed, by the Compte de Buffon, to increaſe the varieties of the feathered race, as often as unpaired individuals of different genera and ſexes meet in the foreſts; "*qui ſcait, tout ce qui fait, dans les fonds des bois?*" ſays that lively writer; and it may be equally difficult to aſcertain what enterpizes theſe abominable animals are engaged in throughout the lanes and jungles during the darkneſs of night.

THE large long-tailed Ape is another deſtructive animal, that hovers around the dwellings of the natives of Bengal. This animal, in this province, is ſeldom ſeen far from the neighbourhood of man: there his cravings often inſtigate him to pilfer the food of the natives, who ſometimes repel him; but oftener, from a kind of reverence they have for the tribe, they ſupply his wants.

IN Bootan the natives pay a ſort of worſhip to the monkies; when invaded by the Chineſe, they expreſſed

ed the greateſt horror at ſeeing them eaten by that people.

Almost at every village you hear numbers of them ſcrambling among the trees: a large ape will run over the whole breadth of a banyan-tree, leaping from branch to branch nearly as quickly as it would upon the ground. Such feats of agility in the females, are the more remarkable; as they often ſpring from branch to branch, while a young one, perhaps, of half her own ſize, hangs by its claws from her belly, with its back turned downwards.

When kindly uſed, they ſeem grateful, and ſoon become familiar; but they remain always watchful and ſuſpicious: on receiving any injury, they are irritable and vindictive in a very high degree. One of our officers, when purſuing game, fell in with a tribe of them, and imprudently diſcharged his muſket, and wounded one. The ape, rendered incapable of flight, inſtantly determined to repel force, and in grappling with the officer, threw him upon the ground, and tore his clothes and ſkin: the officer, after this inglorious combat, was glad to retreat to his budgerrow, in a plight that drew from his companions much more ridicule than pity.

It is thus that the ape of Bengal retaliates their violence upon the lords of the creation, when their dominion degenerates into caprice or tyranny: and it muſt ſometimes be regretted, that the ſpiritleſs Hindoo

doo cannot imitate the ape in the magnanimity of his reſentment, and vindicate the rights of nature.

THE gentleneſs and tender treatment of the Bengaleſe to all the animals, is an amiable aſpect of his character; for which he is, probably, much indebted to the influence of his religious opinions. There can be no doubt, but the regard ſhown to the cow, the ape, and many of the birds, proceeds from this ſource. The belief, that his ſoul, by tranſmigration may hereafter animate one of theſe creatures; or that at preſent it may be the reſidence of the ſpirit of a departed friend; certainly creates a ſtrong obligation on his mind to treat them with tenderneſs, and even with affection.

HOWEVER this be, it is certain, that gentleneſs to the brute creation is conſpicuouſly diſplayed in every part of his conduct. The inferior animals, who are taught by experience, whether to ſhun or aſſociate with man, ſeem perfectly acquainted with this diſpoſition of the Hindoo. In that confidence with which they approach him, they pay a compliment to his humanity, which would prove at once indiſcreet and dangerous if paid to an European. Even the children ſeem leſs miſchievous and annoying to the wild animals, than in Europe. Did the ſame number of jackals enter a large town in England, and ſtroll there in the ſame manner that they traverſe each night the ſtreets of Calcutta; a thouſand ſtratagems and dangers would aſſail them; and, probably, few would

would make good their retreat to the woods, in the morning.

HENCE it is that the Crow, Kite, Mino, and Sparrow, hop about the dwellings of the Orientals, with a degree of familiarity unknown in Europe. The houſes of the Engliſh are alſo haunted by theſe intruders; who frequently pilfer from the diſhes of meat, as they are carried from the cook-room to the hall. The obvious cauſe of their impunity in theſe enterprizes, is the inability of Europeans to purſue them in ſo hot a climate. Perhaps indolence, produced from the ſame cauſe, will in part account for the forbearance of the natives: tenderneſs, on ſome occaſions, to noxious animals, rather merits the appellation of an indolent facility of nature, than a moral virtue.

In ſome parts of Europe, the Stork is protected by law, for his ſervices in deſtroying noiſome reptiles: here the largeſt bird of that ſpecies finds equal ſecurity in the gentleneſs of the natives. This creature, by far the ſtatelieſt of his tribe, is ludicrouſly termed the *adjutant*, from his erect poſture, and military ſtrut. He ſtalks about at a few paces diſtant from the natives; and if he ſtretch his long neck and bill, he nearly equals them in his tall and portly figure. Toads, ſerpents, lizards and inſects, are his food; of which he is remarkably voracious, being endowed with a ſtomach of very ſtrong digeſtive powers The ſoldiers about the cantonment ſometimes ſport with

his voracity, at the expence of his quiet: a large piece of meat, faſtened by a rope, and a ſtake, to the ground, is thrown out to him: this he ſoon ſwallows; but when he attempts to retreat with the rich meal, he is held by the rope, till he ſubmit either to captivity, or diſgorge his food: to an animal ſo voracious, this alternative is cruel.

THE

## THE AGRICULTURE OF THE DISTRICT, AS AFFECTED BY THE GANGES.

*Rajahmahl,* 1797.

THE more frequently you examine the operations of the Ryut in Bengal, the more fully will you be convinced of their inefficacy; either for the ſoil of this country, or perhaps of any other. We have here witneſſed the effects of four ploughings upon a field newly opened from the *ſward.* In an uncultivated ſtate, the ſoil of this province becomes remarkably firm and tough; it conſiſts of a mixture of earth, ſo cloſely interwoven with the roots of graſs, as to form a kind of matting. A very ſtrong team of cattle would probably be put to a ſtand by the ſtrength and coheſion of theſe numerous roots: the Bengalee plough ſcarcely makes any impreſſion at all perceptible, on firſt paſſing over it; and it would make ſtill leſs, were it not for a precaution generally taken here in breaking up new ſoil.

ON

On occaſions of this kind, the long coarſe graſs, called jungle by the natives, is ſet fire to, and completely burnt off, before the commencement of ploughing. This not only lays the ſurface bare, but gives ſome degree of friability to its exterior, which admits of thoſe ſlight impreſſions which you diſcern after the plough. Five or ſix ſtirrings, if ſo they can be called, are ſcarcely ſufficient to produce the appearance of a mould: the large clods upon which proving invincible to the plough, are next attacked with an inſtrument intended for the ſame purpoſe as our roller.

This exactly reſembles a ladder of about eighteen feet in length; and is drawn by four bullocks, which are guided by two men, who ſtand upon the inſtrument in order to increaſe its weight *. This implement, like the plough, produces only a ſlight effect; ſeveral applications of it are neceſſary upon the ſame ſurface, before any thing like a mould can be produced. Thus days are conſumed, and endleſs labour loſt, upon a ſmall piece of ground, which the ſame hands could have completely ſubdued with the ſpade in one half of the time.

In this diſtrict, the long graſs, called jungle, is more prevalent than I ever yet noticed. It riſes to the height of ſeven or eight feet, and is topped with a

* The ordinary ſubſtitute for the harrow, on tender ſoil, is a branch of a tree.

a beautiful white down, reſembling a ſwan's feather. It is the mantle with which nature here covers all the uncultivated ground, and at once veils the indolence of the people, and the nakedneſs of their land. It has a fine ſhewy appearance, as it undulates in the wind like the waves of the ſea. Nothing but greater variety to its colour, prevents it from being one of the moſt beautiful objects, in that rich ſtore of productions with which nature ſpontaneouſly ſupplies the improvident natives.

THE crops are here finely diverſified with the caſtor oil plant, Ricinus *Palma Chriſti*: this is an excellent medicine; but the quantity raiſed far exceeds what is neceſſary for medical purpoſes; it furniſhes an aromatic oil. There are ſome other flowering ſhrubs which I ſhall afterwards more particularly ſpecify. The Indian Corn, Doll, Kelai, and Muſtard, make ſtill a part of the crop, as well as the more common articles of rice, mulberry, and the indigo plant. In variety of produce, the Hindoo probably equals, if he does not ſurpaſs the Engliſh farmer; and this is perhaps the only point on which you can juſtly give him a preference.

THERE is perhaps one ſituation in which the difference between an European and Hindoſtanee plough, is not greatly perceptible; and that is where a field is ploughed while it is covered by water. The work produced is then concealed by its ſurface; and more

more nearly reſembles the operations of a potter, in preparing and *ſetting* his clay, than the cultivation of a field: many fields of rice, however, are not only tilled, but planted in this condition. The method of performing it is the following:

THE farmer previouſly ſows a ſmall ſpace of ground, after being manured, with a very thick crop of rice. After this crop has riſen to the height of ſix or eight inches, it is carefully taken up with the roots at each ſtalk. In this ſtate it is brought upon the field under water, where it is planted, by dropping one or two together in each ſpace, and others at equal diſtances, till the whole field, or rather ſheet of water is completed. The means uſed to ſink it to the bottom, ſo as to ſecure it a proper root, are at once ſimple and ingenious: a ſmall ball of clay is formed around the root of each ſtalk, to carry it perpendicularly to the bottom, and to ſecure it nouriſhment, till the roots, by ſpreading, produce a more liberal ſupply. Such crops may be tedious in their preparation; but I am informed that they generally compenſate the trouble by their abundance.

RAJAMAHL is ſtill diſtinguiſhed among the villages of Bengal, by having formerly been the reſidence of the Rajahs of this rich province, and afterwards of the Mahommedan viceroys. The ruins of this ſpacious palace are ſtill partly ſtanding; and from the apparent ſtrength, and durability of the materials, might have continued entire for ages, had it not

BRANCH

not been for the irreſiſtible encroachments of the Ganges.

On many occaſions the Hindoos pay dearly for their veneration of this river: whole villages are in one ſeaſon, perhaps in a ſingle night, undermined by its ſtream, and buried in the water. This has at laſt been the fate of the palace of Rajahmahl, after it had ſtood for ages one of the greateſt monuments of magnificence of which this part of India can boaſt. The outer walls were from ſeven to fourteen feet in thickneſs, and their foundation laid twenty below the ſurface of the ground. The ſoil contains a mixture of granite rock, which is ſeldom to be found in the plains of Bengal. But the wiſdom which dictated theſe precautions, and the ſtrength of the fabric, have all been overpowered by the force of a ſtream which has ever been irreſiſtible, where it directs its hoſtility.

The palace of Rajahmahl is equal in extent to Windſor, but is greatly inferior either in antiquity or the ſtate of its repair. Its empty halls, marble parlour, and half decayed vaults, ſtill preſent images of its former magnificence; which cannot be viewed without a certain degree of veneration and reſpect: the deſpotiſm of the Eaſt is great even in its ruins.

On the oppoſite bank to Rajahmal are the remains of the ancient city of Gowr, or Luchnuti, ſaid to be fifteen miles in length by three in breadth.

There

There are hardly any buildings ſtanding at preſent; immenſe mounds of rubbiſh and brick duſt is all that now remains of that city, probably one of the largeſt then in the world. Corn fields and jungles are making gradual encroachments even upon theſe laſt veſtiges of the grandeur of Luchnuti, the former capital of Bengal.

The conqueſt of Bengal by the Mahommedans was completed in 1595. It has ever ſince, till our times, remained under their dominion. The antiquity of the palace of Rajahmahl is apparently much more remote than the reign of Aurengzebe, to whom it is aſcribed; but in India the decay of all buildings is rapid. Two hundred years is comparatively a ſhort period to that of many of the family feats in Europe.

The Mogul governor, to whom the province is intruſted, held his court originally at this place. Since the year 1718, it has been removed firſt to Decca, and afterwards to Moreſhedabad, a large town about an hundred miles above Calcutta. There the preſent deſcendant of the ancient Nabobs is kept upon an annual penſion of ſixteen lacks of rupees. He ſtill keeps a conſiderable retinue of infantry and cavalry, who accompany him with all the parade of royalty as often as he makes excurſions into the country.

The

THE important poſt of Rajahmahl, and the government of Bengal, were occupied for ſome time by the ſons of the Great Mogul. They frequently miſapplied both the treaſure and the force entruſted to their charge, and raiſed diſturbances in the empire *. Governors were next choſen, of leſs perſonal influence, and more dependent; who might occaſion leſs alarms to the court of Delhi. Theſe perſons were equally remiſs in tranſmitting the tribute of this province to the Royal treaſury: their abuſes were carried to ſo great a height, that the Emperor unable to pay the Mahrattas the ſums he owed them, authoriſed them in 1740 to collect it in Bengal themſelves. For ten years three ſavage armies of that warlike people ravaged this rich province, and carried off all its wealth.

FROM this ſource the preſent waſte and uncultivated ſtate of this fine province, muſt certainly be in a great meaſure aſcribed. The ſhort period which it has remained in our poſſeſſion, has been more tranquil than any it probably enjoyed for many centuries before; but this period has been too ſhort to diſpel that gloom of deſolation which had ſo deeply overcaſt this fertile kingdom.



* Vide Abbé Raynal, Tom. I. lib. 3.

## EFFECTS OF THE GANGES ON THE AGRICULTURE OF BENGAL.

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*Ganges*, 1797.

SOME of the diſaſters of Bengal, are imputable to the river; for the Ganges, though unqueſtionably a ſource of much wealth and fertility to a vaſt extent of country, is alſo at times the diſpenſer of miſchief, and the cauſe of famine, the moſt ſerious calamity of Bengal. This ſeaſon, from a deficiency of rain in the upper parts of the country, the waters have not riſen to their uſual height; thoſe low-lying rice fields, of whoſe fertility they are the principal cauſe, from want of their uſual ſtimulus, are certainly deficient in crop, and ſerious apprehenſions are begun to be entertained of the ſupplies for another year. A ſingle bad ſeaſon is not of itſelf ſufficient to produce a real ſcarcity of grain, ſo abundant in general are the reſources of this country; but unfortunately the

the very report of a defective crop ſets to work all the jobbers and ſpeculators in the country.

No movement of this great river is unintereſting to the Bengaleſe peaſantry: if when he ſubſides he cauſes diſtreſs; when he unuſually overflows he is equally detrimental, and tremendous. Laſt year, at the period in which I now write, whole diſtricts were buried under water for ſeveral feet; and you might ſail for many days over corn fields, from which the grain was either ſwept away or deſtroyed: cottages, and whole villages were ſurrounded; and many of the native huts were laid in ruins, along with the owners, where they could not make their eſcape in boats. The deſtructive ravages of the laſt ſeaſon were however followed by no general ſcarcity: the abundance of one diſtrict made up for the loſs in another; and amidſt the general plenty individual diſtreſs is eaſily overlooked, or ſoon forgotten.

Even in its ordinary ſtate, the river is an expenſive inſtrument of fertilization, and internal commerce. The ordinary channel neceſſary to carry along the uſual quantity of water diſcharged by the river, includes a waſte of many thouſands of acres, which, during the dry ſeaſon, are ſo many dreary ſand-banks, miles in extent, which are drifted by the winds, to the annoyance of every living creature in their vicinity. Nor is this all; the ſoil of this province is a dark, ſandy loam, fourteen, and in ſome places twenty feet deep; which offers but feeble reſiſtance

ſiſtance to the conſtant action of ſuch a ſtream of water. Wherever a bank of ſuch materials is oppoſed to the current, it is conſtantly eating it away; large portions of the ſoil you hear as you paſs along, falling with a loud noiſe into the water; and if your boat happens unfortunately to be carried by the ſtream under one of theſe banks, you are in danger of being buried under its weight. It is true, indeed, that a portion of land, equal to that deſtroyed, is beginning to appear on the oppoſite ſhore; but this is merely a bed of barren ſand, which the progreſs of vegetation, for many years, is incapable to cover with ſufficient ſoil for the purpoſes of huſbandry.

THE changes produced on the province of Bengal by the conſtant action of ſo immenſe a river, during the lapſe of the many centuries which it is known to have been inhabited, muſt be far greater than can at firſt be imagined. There is unqueſtionable evidence, that the whole maſs of ſoil to a great depth, over many hundred miles, is a congeries of clay, ſand, earth, and vegetable ſubſtances, waſhed down from the vaſt ranges of mountains in the interior of Aſia. In this operation, however, it has been powerfully aſſiſted by the ſtream of the Bharampooter, a river of equal magnitude, which riſes on the ſame ridge of mountains; and though divided in part of its courſe from the Ganges, to a diſtance of not leſs than two thouſand miles, it again approaches it, and for ſeveral hundred miles towards its termination, waters the ſame plains. That the provinces of Bengal have been

been gradually formed by materials depoſited by theſe great rivers, appears from the nature and ſtrata of the ſoil, and the preſent ſtate of the lower part of that kingdom.

THERE have been found at the depth of twenty, or thirty feet, the wreck of boats, their anchors, and other implements, which ſeem to have been ſunk in ſome remote period, when the ſoil was lower, or when this vaſt plain made a part of the ſea. Shells are frequently ſeen when you penetrate deep into the ground, which appear to have been formerly depoſited by the ſea. Rotten wood, and vegetable matter, ſeems every where to conſtitute a part of the ſoil; which to a great depth is of ſo looſe a texture, as ſeems to evince its origin to have been mud depoſited by water.

THAT extenſive and dreary tract, called the Sunder Bunds, conſiſting alternately of jungle and ſtagnated water, which lies between the Hoogly and Chittagong, an extent of near three hundred miles, ſeems ſo lately formed as ſcarcely to be habitable, from its low poſition. It already furniſhes fire-wood for Calcutta, and ſmall timber for domeſtic uſes: the time ſeems to approach when it will be cleared, and brought into cultivation; a time when the tigers and boars, its only inhabitants at preſent, ſhall give place to man, and yield up to his dominion a new territory, equal in extent and fertility to either of the

the three kingdoms that compoſe the Empire of Britain in Europe.

Some ſmall attempts have, I am informed, been already made to cultivate this inhoſpitable waſte, and with no unfavourable proſpect. But land almoſt in every part of India is ſo imperfectly occupied, that new acquiſitions are of but little value, even though near the capital of our poſſeſſions, and ſtill nearer to the ſea. By ſome it is deemed a matter of policy to have a defart of that extent lying between us and the only point of attack from an European enemy. But to lay waſte the ſurrounding territories, has never yet proved either a ſecure or a laſting defence to any nation: maintain a force adequate to your protection, and your enemies will reſpect your power; whereas the dread or difficulty of marching through a defart will readily at one period or another be overcome, if beyond that they are aſſured of victory. Should our naval power hereafter become decidedly inferior to that of any other European nation, the defarts of Chittagong will ſoon be found pervious to that nation, and will aſſuredly fail to ſecure to us the empire of India.

## CULTIVATION OF THE OIL PLANTS.

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*Chandernagore,* 1797.

No inconſiderable part of the crop in Bengal is applied to the production of oil: this article is not only in more general uſe than in Europe, but is alſo conſumed in much greater quantity. The natives very commonly uſe it as an ingredient in their food: they burn it in their lamps; and they apply it as ointment for the ſkin. In the laſt mode of application, it lubricates and ſoftens the tegument, when parched by the ſun, and ſeems to be a powerful protection againſt his rays. It was this manner of uſing it, to which the Jews were accuſtomed, and found ſo refreſhing: if wine made their hearts glad, it was oil that made their faces to ſhine. In illuſtrating the delightful and happy effects of mutual love, one of the ſacred poets compares it to ointment poured on

"the

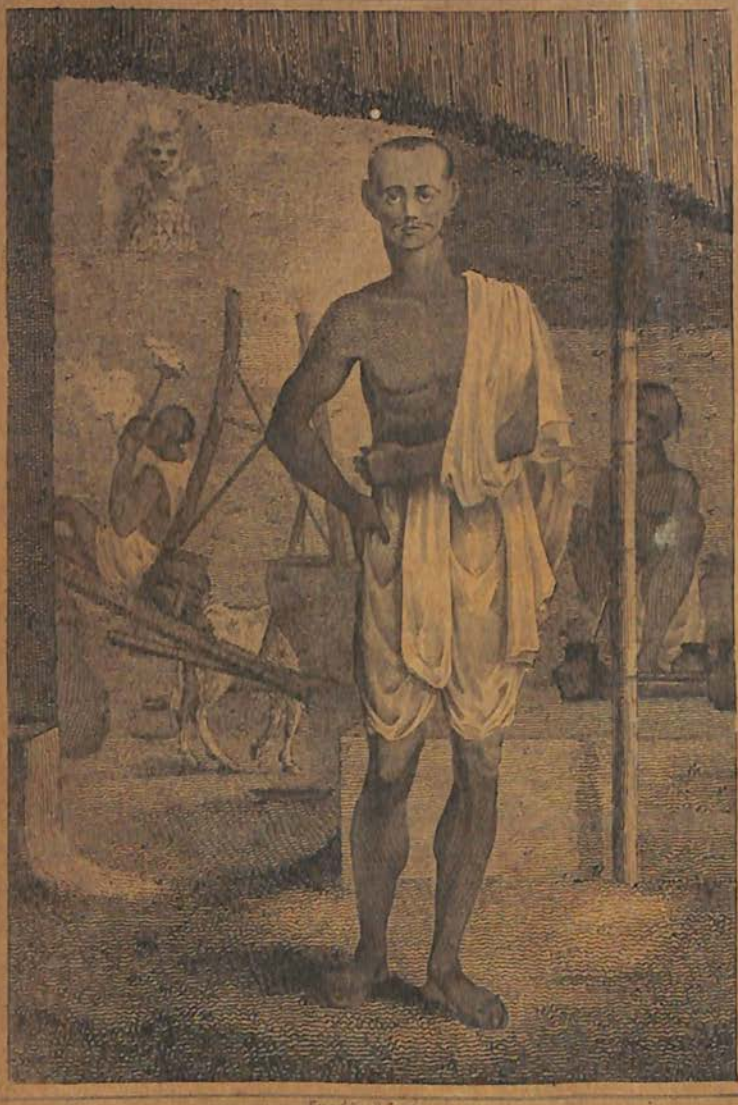
" the beard," copiouſly and overflowing the whole body, to the " ſkirts of the garments."

For the ſupply of this favourite produce, ſeveral plants are here cultivated; Muſtard, Flax, the Ricinus Palma Chriſti, or Caſtor Oil plant, the Cocoa Nut tree, and many others.

The muſtard is the ſame with that which grows in Europe, but weaker in quality; a circumſtance which renders it ſo inſipid to Europeans, that conſiderable quantities are brought from Europe for the uſe of the table. After the ground has been ſufficiently reduced for this ſmall ſeed, it is ſown broadcaſt, and gently covered in with a harrow, or by ſcratching the mould with the branch of a tree. After this preparation the crop ſown makes its appearance ſeemingly in great abundance, and one of the moſt beautiful to the eye which the country affords.

The moſt luxuriant crops I have obſerved of this plant, were upon the banks of the river. When the ſtream ſubſides, in the month of October, large banks of dry and ſterile ſand are left in ſome parts, which the cultivator not only cannot turn to any account, but which prove by blowing or drifting, an annoyance to the adjacent fields: in other places, the river on ſubſiding, leaves the farmer a more valuable bequeſt, in thoſe large ſtrata of ſoft mud, which probably conſtitute the richeſt of all ſoils. It

is



Engd by R. Scott

THE OIL MILL OF THE HINDOOS.

is upon theſe that he ſows his muſtard; and there too he commonly reaps the richeſt crops, without any cultivation at all; for all that is neceſſary is to cover in the ſeed, by drawing a branch over it, as already mentioned.

Another expedient for the production of oil, is growing the Seſamum orientale; a plant ſomewhat reſembling hemp; but of a clean and ſemitranſparent ſtalk, with a beautiful flower. So gaudy is the appearance of this crop, when in bloſſom, that you would at firſt imagine it had been cultivated for ſhow, rather than uſe: and the fine aromatic flavour it diffuſes, tends, on a nearer approach, rather to confirm, than remove your miſtake. According to the account given by the natives, the oil produced by this vegetable, is that principally uſed in food. Its aromatic quality probably aſſiſts in preſerving its ſweetneſs, and muſt certainly add much to its reliſh.

The mode of expreſſing oil from the ſeeds of the two foregoing plants, is by putting them into a large mortar, the peſtle of which is turned by a bullock continually driven round the floor of the barn. The operation is nearly ſimilar to that of bruiſing the ſugar-cane.

One particular with regard to the crops upon the mud banks, ſtruck me as deſerving notice from its ſo nearly reſembling what is ſaid of the cultivation of ſome parts of Egypt, bordering on the Nile. The crops,

in both inſtances, may be ſaid to be ſpontaneous: the flatneſs of the ſurface, too, is another point of ſtrong reſemblance. Water introduced at one corner of theſe banks of mud, may, by means of ſmall furrows, be conducted to every part of the field. For making ſuch a ſlender aqueduct, hardly any inſtrument is requiſite; the native, with his fingers or his toes, can conduct the ſtream. Such expreſſions in Scripture, as, "I will water thee with my *foot*;" which, to an European, appear perfectly incomprehenſible, acquire, here, an obvious ſignificance, and admit of an eaſy explanation.

The Cocoa-nut Tree, one of the moſt pictureſque, as well as the moſt uſeful, in the tropical regions, muſt not be omitted, in giving an account of methods practiſed in Bengal for procuring oil In the foreſt the cocoa nut tree claims patrician rank: it is tall, perfectly ſtraight, and riſes perpendicularly the whole of its length, without a branch. On the top, it is crowned with a number of large branch-like leaves, which ſpread around in all directions, and are attached to the ſides of branches ſo ſlender, as to reſemble the ſtalk of a leguminous plant, rather than parts of a tree. At the roots of theſe branches hang the large nuts ſo well known in Europe, that they need no deſcription. The milk with which they are filled is palatable, and to the natives wholeſome. The edible part of the fruit is cloſely attached to the inſide of the ſhell, and to ſtomachs only habituated to vegetable diet it is very grateful, as well as nutritive: both

both the fruit and juice, when taken in quantity, have been found hurtful to Europeans: the latter, when allowed to remain in the nut till fermentation takes place, is intoxicating: ſome of the king's troops lately arrived, have, it is ſaid, been much injured by venturing upon too liberal draughts of it.

THE ſtringy covering of this nut, bears a ſtrong reſemblance to oakum, and is, I am informed, ſometimes uſed for the ſame purpoſes. It affords alſo a material for coarſe mattings, and cables of good quality. The ſhell of the nut contains a very conſiderable quantity of a pure aromatic oil. The method of extracting it is by means of the common oil mill: a machine which illuſtrates the ſimplicity and rude ſtructure of all the Hindoo implements of huſbandry*. The Koalhoo, an oilman, is reckoned an impure perſon, and his ſhop a nuiſance like a dram-ſhop in Europe, by the Inſtitutes of Menu. The ſugar-mill, is little different in its conſtruction: it conſiſts merely of a large log of wood fixed in the ground, and hollowed out at the upper end, to receive a large mortar, which is turned by a couple of bullocks.

AMONG the oil plants, the Mahwah, or Mawa, holds a diſtinguiſhed place; its Sanſcreet name is Madhuca, and belongs to the claſs of Polyandria monogynia of Linnæus,

* See the Repreſentation, Sect. I. No. 38.

Linnæus, but of a genus not deſcribed by him†. "The flowers of this tree (ſays Mr Hamilton) are of a nature very different from thoſe of any other plant with which I am acquainted, as they have not in any reſpect the uſual appearance of leaves; and I, like many others, had long conceived them to be the fruit of the Mahwah." When prepared by drying in the ſun, they reſemble dried grapes, both in taſte and flavour.

THE fruit, ſtrictly ſo called, ripens in May, and drops in June; when the pericarpium commonly burſts; and when it does not, the ſeeds are very eaſily ſqueezed out of it. It is replete with a thick oil, reſembling ghee; and being cheaper, the natives often mix it with that article. They uſe it for the ſame purpoſes as butter, or ghee, in their common food, and fuel for lamps. It is alſo regarded as a ſalutary medicine, and applied externally to wounds, and all cutaneous eruptions. From not being properly clarified in its firſt preparation, it is apt to acquire a diſagreeable taſte, and rancid ſmell; but even in this unſound ſtate, as well as in its original form, it is exported to Patna, and other diſtricts of the low country.

THIS

† For a full deſcription of the Mawca, the reader may conſult the Aſiatic Reſearches, Vol. I. page 200. in a paper by Lieut. Hamilton.

THIS tree in the ſpring ſeaſon, is replete with a gum, which may probably be found to ſerve many uſeful purpoſes; and the wood muſt be very ſerviceable in building, if it be true that it is not liable to be eaten by the white ants. It will grow in the moſt barren grounds, even among ſtones and gravel, where there is hardly any appearance of ſoil. It does not, however, refuſe a richer ſoil; for Mr Keer has obſerved ſome at Buxar, where the ſoil is better, that were much taller, and more thriving, than in the poorer ſoils of Ramgur.

WHAT is peculiar in the Mahwah tree, it does not require much moiſture; but ſeems to produce nearly as well in the drieſt as in the moſt favourable years; and in every ſituation: it is, therefore, admirably fitted for the convenience of the inhabitants of theſe hilly diſtricts, which are peculiarly ſubject to long and ſevere droughts during the hot months.

THE oil-plants, and particularly the Palmachriſti, occupy a great proportion of the land and labour of the farmer; which, by the more general culture of the Mahwah, might, in all probability, be ſpared for other purpoſes. The far greater part of the hilly diſtricts, ſeem hardly fit to yield any other uſeful production. yet, notwithſtanding its utility, and the vaſt quantity of ground only fit for its production, Mr Hamilton obſerves, that you very ſeldom ſee this tree in an early ſtate. Every where full-grown trees are ſeen

near

near the villages: a proof, that many more have been cultivated in former times.

A good Mahwah-tree will yield 300 weight of dried flowers, of the value of two rupees: of the ſeeds it will yield about 150lb. producing 50lb. of oil, worth, in the cheaper years, about two rupees. Allowing one-half of this to be the average produce of a tree, and with careful cultivation it might be more in the ſpace of ten or fifteen years, an immenſe additional ſubſiſtence, might be raiſed for the inhabitants, and a conſiderable revenue to the Zemindars, and to government, upon lands little better than a deſart, yielding at preſent nothing either to the farmer or the ſtate.

These ideas are the more plauſible, when we conſider the great difficulty of raiſing many of the oil crops, particularly the palmachriſti, which grows to the thickneſs of a man's arm, and muſt be cut down with an ax, inſtead of a ſickle. When this foreſt-like crop is removed, a new proceſs, that of grubbing up the roots with the hoe, is neceſſary before the ground can be ſubmitted to cultivation. This operation reſembles the grubbing of *whins*, and muſt be equally difficult and expenſive.

THE

## THE CULTURE OF THE INDIGO PLANT, INDIGOFERA *TINCTORIA*.

. . . . . .

*Kiſſengunge*, 1797.

My ſtay at this place, and my progreſs towards it, during a journey of three hundred miles, have afforded ſome opportunities of examining the culture of the indigo plant, and the proceſs of its manufacture. The name of this drug ſeems to imply that it was known anciently in Hindoſtan, and Tavernier mentions it in his time as common; in fact the Romans were ſupplied with it from this quarter; but after the diſcovery of America, Europeans began to cultivate indigo there, and engroſſed the whole market of Europe. No competition can probably long exiſt between them and the natives: their enterpriſe, ſkill, and induſtry, ſoon procure them a decided advantage. The Indians, however, ſave much in capital. They carry on the manufacture without the

the expence of any one houſe whatever. The plant is ſteeped in large jars in the open air.

THE late rapid extenſion of the indigo trade is to be aſcribed to that ſpirit of enterpriſe which diſtinguiſhes every claſs of Europeans, who venture to purchaſe independence at the expence of a diſtant voyage, and the riſk of a hoſtile climate. It was at firſt undertaken from the general motives of adding to the induſtry of the country, and of improving their private fortunes. Any project, even of moderate plauſibility, had, in ſuch hands, a certainty of being commenced at leaſt with ſpirit and activity.

ACCORDINGLY, for ſeveral years, during the late peace, the manufacture of indigo was begun with ardour, and attended with conſiderable ſucceſs. But it derived its complete eſtabliſhment and ſtability in India from a ſource which, at that period, was altogether unforeſeen; the devaſtations in the Weſt Indies, and the Spaniſh war. At the beginning of this undertaking, and during the inexperience of Europeans, added to the unſkilfulneſs of the natives, this article had to enter the European market in competition with the French and Spaniſh indigo in the height of an abundance, that aroſe from extenſive capitals, and matured experience. In ſuch unpromiſing circumſtances, the introduction of a new manufacture into India could not have been ſucceſsful, had the execution of it fallen to leſs able hands.

AT

At length that ſpirit of Republican anarchy, which in Europe had been ſo fatal to life and property in every diſtrict which it pervaded, reached the Weſt Indies. It has there been attended not only with the uſual conflagrations, murders, and rapine; but by putting an end to all induſtry, it ſeemed to rob the ſoil of its produce. The large and populous iſland of St. Domingo, that formerly yielded a produce nearly as great as that of all the reſt of the Weſt Indies, has been almoſt wholly deſtroyed by the too ardent heat of this new fanaticiſm.

The exportation of indigo, as well as of every other produce from this iſland, muſt, for many years, prove inconſiderable. In the mean time, the culture and manufacture of this plant has attained to ſuch a degree of perfection, that no future efforts of the French cultivators will ever place them on the ſame advantageous footing.

A greater quantity of indigo has, for ſome years paſt, been produced within the Company's territories than the ſupply of the European market ever yet did, or perhaps ever will demand. The price of the article has accordingly fallen, and while the ſame ſuperabundance continues, it muſt fall. The ardour of ſpeculation has outdone its end: and much capital muſt be unprofitably ſunk, till the ſupply becomes proportioned to the demand; and this branch of induſtry, at preſent overſtrained, reſumes its poſture on the general level with every other.

A great number of indigo works have ſtopped, on the failure of their owners: the conſequence of this has already been a diminution of the quantity brought to market; and an increaſe of the price. Such as have ſtood out this difficult period, may perhaps ſucceed better than if no embarraſſment had been ever felt.

INDIGO, from the very nature of the commodity, muſt always be limited in its demand; ſince the increaſe of manufactures in Europe can only augment it to a certain extent: when, therefore, the quantity exported from Bengal, ſmall in its commencement, increaſed rapidly to the amount of two, three, or four millions of pounds annually, as it is ſaid to have done for ſome years paſt, the price muſt inevitably fall.

THE ſtagnation of the ſales in Europe; the failure of remittances from that quarter; and the conſequent alarms and embarraſſments of the indigo traders here; are the natural reſult of the exceſs in the quantity brought to ſale: inſtead of occaſioning ſurpriſe among the parties concerned, they ſhould have expected it; and inſtead of foreboding the overthrow of this manufacture, it affords a very ſtrong proof of its proſperity.

ONE circumſtance which renders this country peculiarly fitted for the culture of indigo, is the immenſe tracts of land that are at preſent waſte, or under

der a very imperfect cultivation. The weed manufactured at one complete work, requires ſeveral thouſand acres to raiſe it: and in this reſpect India offers a field for the cultivation of it far more extenſive than the iſlands of the Weſtern Archipelago.

THE moſt general method adopted by the indigo manufacturers for procuring the weed, is agreeing with the natives for what quantity of the plant they can produce, and bring to the work, at a fixed price. One half of the money muſt be paid them in advance, to enable them to ſubſiſt during the culture of the field, and the growth of the plant, till fit for uſe. No undertaking, however ſmall, can be begun by the Ryut. He has no ſtock, and cannot proceed a ſingle ſtep without immediate aſſiſtance. The produce of an acre of ground tolerably productive, does not yield, upon an average, more than from ſix to ten pounds of indigo, which, at the late prices, leaves a very inconſiderable ſum for the rent, labour, and ſeed; after defraying the intereſt of capital, and the wages of labour neceſſary for its manufacture.

IT is probable that the plant, like every other in India, is leſs productive than that raiſed in the other countries. This circumſtance I have already had frequent occaſion to notice; and if it does not take place in this inſtance, it will prove a departure from the general analogy that nature has eſtabliſhed between the Aſiatic and European plants.

IN

In this country the price of labour is various; from one rupee per month, to four. I have been informed that the late rage for the cultivation of this plant, has in ſome provinces contributed conſiderably to raiſe it. The ſtop put to the ſales in Europe, will ſoon diminiſh the quantity produced, and probably reduce the wages of the labourer to their former ſtandard; a circumſtance intimately connected with the proſperity of the country.

When the wages of the labourer are higher than his neceſſary ſupport requires, he is found willing to work only a part of his time; and the quantity of productive labour is proportionably leſs over the whole country. The circumſtances of the poor are not benefited by the alteration: they are oftener idle than before; and when idle they are not always innocently employed. The great advantage India poſſeſſes over almoſt every country, lies in the cheapneſs of labour, which enables it to afford its manufactured produce at a rate ſo low, in all foreign markets, as has hitherto defied competition.

As matters have hitherto ſtood, the labour of the Hindoo is reckoned only a ſixth part of that of the African negro: and ſome important conſequences are likely to reſult from this circumſtance, as ſoon as a fair competition ſhall take place between other articles of produce of the Eaſt and Weſt Indies. The wages of labourers at this branch have been at two, three, and four rupees per month: ſmall as this may

appear,

appear, it is a large ſum, when compared to what is given to many of the hands employed in the manufacture of cotton: many of theſe, it is ſaid, labour for a ſum which hardly equals three farthings of our money.

AFTER the indigo plant has been raiſed and carried to the work, it is put into a large vat, filled with water; where it is allowed to remain a ſufficient time to extract the colouring matter, by undergoing a fermentation. The heat of the weather muſt determine the number of hours neceſſary for this purpoſe; as it does with us in the *ſteeping* of flax and hemp.

IT is obſerved, that the longer the plant continues in a ſtate of fermentation, the greater is the quantity of indigo produced: but it is heavy, and coarſe in quality. Of late the finer indigos only have been found marketable; and this has obliged the manufacturer to improve the fineneſs of the commodity, by ſhortening the period of fermentation.

THE preciſe time of letting off the water to produce the greateſt quantity, and fineſt of the material, requires a minuteneſs of obſervation which experience alone can teach. Water thus impregnated with the colouring matter, and drawn off from the vatt into another large veſſel, is then beat by the natives, or rather churned, till it aſſumes a muddy and curdled appearance. In this part of the proceſs, another effort of diſcernment is neceſſary, to diſcover when the colouring

colouring matter is ſufficiently diſengaged from the water to allow it to ſubſide wholly to the bottom of the veſſel.

AFTER the water has remained long enough to permit the depoſition of the indigo, it is then drawn off, and the commodity is dried, and packed up for the market. That we are not yet perfectly acquainted with the niceties of this proceſs, appears pretty evident, from the different reſults in circumſtances apparently the ſame. Let part of the ſame plant, that was manufactured yeſterday, be, to-day, infuſed in the ſame water, and heated as nearly as poſſible in a ſimilar manner, the quantity and quality of the produce ſhall probably turn out very different.

THE ſtate of the weather has invariably an effect upon this manufacture: during a dry ſeaſon, the plant is always richer, and the produce more abundant. That which has grown on ſome ſoils, is much more valuable than the produce of others. The hiſtory of the indigo plant correſponds in theſe particulars pretty exactly with that of many other vegetables; but in its uncertainty as a productive crop, it far ſurpaſſes them all. A planter, whoſe crops to-day are rich and abundant; whoſe expectations of a profitable return, ſeem perfectly ſecure and reaſonable; may awaken to-morrow, to behold all his hopes completely blaſted: a ſtorm of wind, accompanied with rain and large hailſtones, as completely ruins his crop, as if it had been devoured by the locuſt. From this

latter

latter calamity the indigo planter is not exempted in any part of Bengal. At the period I am writing, the newſpapers announce the deſtruction of large fields of indigo all over the diſtricts of Patna and Benares. The fluctuation of the European markets had, for ſome years paſt, added greatly to this uncertainty of the condition of a planter: the ſtate of his finances ſomewhat reſembles that of a gameſter; and it has, of late, been deemed equally precarious to lend him money.

After all theſe diſadvantages attending this branch of buſineſs in India, it ſeems too firmly eſtabliſhed ever to be overthrown: the moſt diſcerning merchants are, on the contrary, looking forward, with ſome certainty, to a period when, from its quality and cheapneſs, the Bengal indigo will preclude all competition in the market of Europe.

Those who contend that the prejudices of the Hindoos, and their attachment to cuſtom, will for ever prevent all improvements in their agriculture; or preclude the introduction of any new branch into their manufactures, carefully conceal the hiſtory of the indigo plant; and the culture of the potatoe. Opinions merely theoretical are ever beſt ſupported by ambiguous facts of ancient date; or ſubtilty of argument: the rapid introduction, and the proſperity of the indigo manufacture, preſents facts too recent, and too notoriouſly inſurmountable, to render this opinion tenable by any perſon who candidly weighs them.

them. If in one or two particulars we have undeniably benefited the natives, it requires no great ſtretch of apprehenſion to conceive, that, by repeated attempts, ſtill other methods may be deviſed of adding to their comforts, and increaſing our own.

CUCUM-

. . . . . .

*Mahungunge*, 1797.

THIS paſſage of country diſplays a greater abundance and variety of eſculent plants, than I have elſewhere obſerved. The different ſpecies of the cucumber are much more numerous than in Europe. Here whole fields are planted with them; and from the rapidity of their growth, and their facility in propagating themſelves by creeping along, and puſhing down new roots, the field ſoon becomes completely matted. No other crop can ſucceed this vegetable till its *haum* is ſtripped away, and the ſoil laid bare. Were the ſlender plough put into it, before this operation, it would be choaked by the immenſe quantity of rubbiſh upon the ſurface.

THIS crop, which the Bengaleſe call Pulwall, is not very grateful to the eye, eſpecially when the

leaves begin to decay, as they do at preſent; but if not beautiful it is extremely uſeful; for you daily ſee the natives uſing it as a curry ſtuff. It would indeed perhaps be eaſier to enumerate the eſculent plants they reject, than thoſe they admit into that ſtanding diſh both of the Hindoos and Moors. It is a miſcellaneous compoſition of leaves, cucumbers, onions, potatoes, and in ſhort, of almoſt every plant within their reach.

THIS they devour with much avidity, and in great quantities: their partiality for it ſeems to reſemble that craving which our countrymen diſcover for *hotch potch;* another multifarious mixture of every vegetable in the garden. A ſpecies of cucumber, met with in gardens here, is from eight to ten inches long; a very ſhewy vegetable, but remarkably ſoft, and nauſeous as a diſh at table.

THE water melon, which I have elſewhere mentioned, is here of incredible ſize; its ſtalk leaves and bloſſoms form a delightfully variegated matting, with which moſt of the native cots in this village are entirely covered. A village decorated in this manner, gives an European an idea of plenty, and of luxuriance of vegetation, which pleaſes the imagination; becauſes it relieves it from thoſe impreſſions of poverty, which the nakedneſs of the people, and the meanneſs of their houſes, are apt to create. The habitation of a Hindoo, mantled with this plant, and loaded with its enormous fruit, poſſeſſes an air of

of plenty, and of rural ſimplicity, of which no European cottage can boaſt; for the largeſt fruit with you would appear beggarly if compared with this melon. This fruit the natives turn to better account than decoration; it affords them a comfortable refreſhment; upon European tables it is chiefly prized as an article of ſhew; as part of food it has never been in high eſtimation.

AMIDST ſuch an abundant ſupply of vegetable food for themſelves, the natives merit no commendation, in providing for their cattle. The common paſture is very miſerable in quality, and often defective in point of quantity; yet graſs or ſtraw is almoſt the only food of working cattle. I have here met with another frugiferous plant which reſembles hemp, when about half its height. The grain produced by this vegetable, is called by the natives Kelai, and is given to the horſes after having been boiled. This affords by no means a general ſupply; for I do not remember to have once ſeen it in Calcutta, where the horſes are kept with the greateſt care of any part of India.

A European here continually regrets the want of artificial food for cattle; and particularly that of the graſſes; without which agriculture can in no country be ſaid to have attained half its perfection.

THE graſs totally diſappears in ſome places during the hot winds; at that ſeaſon horſes are fed by cutting

ting the roots of graſs below ground, which are waſhed, and afford excellent food. Artificial graſſes would, perhaps, not outlive the hot winds, that fatal ſcourge of Indian paſture.

THE preſent time is, perhaps, the moſt favourable the Engliſh ever enjoyed for attempting the introduction of that improvement. From poſſeſſing the Cape of Good Hope, a ſupply of freſh ſeeds might be procured, with far greater certainty than immediately from England. The garden ſeeds from Europe, after a voyage of five or ſix months, are often ſo much damaged, as to prove altogether unfit for ſowing: and graſs ſeeds, from their peculiar ſmallneſs in ſize, muſt prove ſtill more liable to this accident. Experiments, it is ſaid, have been made of ſome of the artificial graſſes of Europe in this province; but ſo feebly and ill conducted, as to decide nothing, either for or againſt their introduction.

THERE is hardly a doubt, that Lucern, Vetches, Clover, and Ryegraſs, would prove abundant crops in the lower parts of Bengal; after diſcovering the proper ſoil and ſeaſon for ſowing them. Probably, the rapidity of their growth during the rains, would render them leſs nutritive than in their native ſoils; but even in that caſe, they would prove far ſuperior to the preſent food, either of horſes, or horned cattle. The truth is; Bengal is not more than half inhabited, either by man, or the uſeful animals. Whenever it arrives at its full complement of inhabitants, the preſent

preſent ſupplies will be found inadequate, and the introduction of graſſes will then be ſet about as a work of neceſſity. So long as three or four rupees per month given to a graſs-cutter, for each horſe, will enable him to pilfer ſufficient food for him in the neighbouring ditches, a farther ſupply is not perhaps very neceſſary: but what eſtimate are we to form of the number of horſes in a country, where their ſole food is the roots of graſs picked from the tanks and ditches: what judgment are we to pronounce on the population of a province, where, in ordinary ſeaſons, no art or ſanction is neceſſary for providing the ſuſtenance, either of man or beaſt?

It is unfortunate for this country, that almoſt every propoſal for adding to the induſtry and comfort of the natives, meets with oppoſition and ridicule from a great proportion of the Europeans by whom its public affairs are guided. The exertions of the active and benevolent are, every where as well as here, a reproach to the indolent: but, unhappily, this is almoſt univerſally the vice of Europeans in India. In one or two inſtances only, do they ſhow their uſual activity, in accumulating money; or diſſipating it, by extravagance. So far do they aſſume the character of the natives, that, whatever does not promiſe immediate gain or immediate pleaſure, appears but of little importance.

It muſt, at the ſame time, be acknowledged, that ſome of the propoſitions of our countrymen, in favour

vour of the natives, have provoked ridicule by their abſurdity. It is related of a perſon, who came out with a very high appointment in the ſervice; that, on firſt ſeeing the native females going down half naked, to bathe in the river, he expreſſed his hopes of beholding them, before his departure, dreſſed in gowns, ſtays, ſhoes, and ſtockings. Had this gentleman's ideas been carried into effect, his benevolent miſtake muſt have proved a ſerious calamity. A native of either ſex, in full European dreſs, feels all the reſtraint and awkwardneſs of a monkey; and, inſtead of being more comfortable, he is in danger of a fever, from bearing ſuch a load. Yet ſtill the dreſs of the natives might be improved: in the months of October and November, it is by far too light and partial. Perſpiration ſuddenly checked, as at this ſeaſon it often muſt be, affects their bowels with violent complaints, which carry them off in a greater proportion than Europeans. The moſt experienced phyſicians have at that period recommended additional cloathing. But ſo contradictory is this to the whole habits of the Hindoo, that it has hardly in any inſtance been complied with.

From the circumſtance above hinted at, much unmerited ridicule has been thrown upon ſeveral gentlemen now in India, deſervedly high in reputation. The diſſemination of the ſilk manufacture into different provinces; the introduction of the bread-fruit tree; and that of the cochineal inſect, afford no contemptible proofs either of the judgment with which

their

their improvements were planned, or the perſeverance with which they have been carrried into execution.

HAD theſe gentlemen even failed in their attempts, they have the merit ſtill remaining, of tranſmitting to Europe more extenſive and accurate information regarding the condition of the natives of this vaſt peninſula, than any other perſons of the preſent times.

THE

## THE CULTIVATION OF THE MULBERRY.

*Jungipore, Oct.* 1798.

In proceeding with a detachment of the army by the Hoogley and the Ganges, I had further opportunity of enquiring after the different ſorts of crop, and produce of agriculture. The month of October is in Bengal one ſeaſon for ſowing and planting ſeveral kinds of crops, particularly the European grains; during this month the mulberry is planted with moſt advantage. After the field has, by frequent ploughings, been reduced to a proper tilth, furrows are drawn at the diſtance of eighteen inches, or two feet; their depth from four to ſix inches. In theſe, ſmall cuttings of the mulberry are planted, to the number of eight or ten in one pit. The longitudinal diſtance between two pits, is two feet, or nearly equal to the lateral diſtance of the furrows in which they are made. The earth after being well preſſed down with

with the hand around the cutting, is then loofely ſcattered over their tops, and the work is concluded. This operation requires a number of hands; ſome ploughing; while others are employed cutting the ſmall mulberry twigs into proper ſize; others carry them upon the field, and place the proper number at the ſide of each pit; while the operation of planting is begun at one ſide of the field.

If the operations of the Hindoos in the field ever aſſume the appearance of activity or induſtry, it is at this period, and at ſuch proceſſes as this. The weather, to their feelings, begins to be cold; and ſome activity is neceſſary to repel its attacks. The plough too ſeems to perform ſomething reſembling huſband-like labour: this, however, is owing to no ſuperior ſtrength of the implements or exertion of the cattle; but is ſolely to be aſcribed to the greater ſoftneſs and friability of the mould, after frequent ſtirrings.

Nothing can exceed the beauty of the mulberry, when it firſt makes its appearance, in ſmall clumps or ſtools, above the parallel rows of pits in which it has been planted. The ſoil being then clean of weeds, the mulberry leaves give a rich, green, and buſhy appearance very grateful to the eye, on ſurveying a plantation of this kind. This plant is never allowed, in Bengal, to reach the ſize of a fruit-bearing tree, when intended for the ſilk-worm. It riſes in a ſhrub like form, ſomewhat larger than a raſpberry buſh: it is then that the natives pick the

leaves, and carry them to the houſes in which the worms are fed for ſpinning. The care of the ſilk-worm, the collection of its food, and winning the ſilk, are operations requiring no effort of ſtrength, or bodily exertion, and on that account peculiarly ſuited to the genius of the indolent Bengaleſe.

If at this ſeaſon of the year, he be put to labour too inceſſant and fatiguing to admit of his ſmoaking his tobacco, he languiſhes, and ſhould a fever ſupervene, probably expires. On the banks you will ſee ſometimes two or three of them on the funeral pile at the ſame inſtant, and at no great diſtance from each other. The life of a native is here a ſhort and chequered ſcene. He has frequently at the end of his career more cauſe, than the venerable patriarch Jacob, to complain that his days "have been few and evil."

The growing of ſilk has been deemed a Chineſe invention; but as there are large quantities of wild ſilk gathered in India, probably it has, like indigo, been ſupplanted in the European market by Italian and French ſilk. The export of Bengal ſilk is however ſtill conſiderable, though in quality it is reckoned inferior to European produce. Perhaps this branch of agriculture never attained to any great degree of perfection; for we know from the Roman hiſtorians, after they had acquired their utmoſt extent of Aſiatic territory, that this article continued invariably to bear a very high price in Rome. Its quality

lity too, was probably coarſe, as it is at preſent; at leaſt the uniform tenor in which the natives conduct every manufacture, leads to this concluſion *.

THE cauſe of the coarſeneſs of Indian ſilks has not been ſo well aſcertained as the certainty of the fact. No naturaliſt of any eminence has examined the nature of the inſect ſufficiently, to diſcover where the defect originates. It may poſſibly be owing to the exceſſive moiſture, and heat of the climate, which communicates a watery inſipidity to every vegetable production; and which may, therefore, produce a mulberry leaf leſs nutritive than that of China or of Italy. The ſame cauſe may have enlarged the ſize of the inſect itſelf, or produced ſuch a relaxation of the parts employed in this function, as renders them incapable of forming a thread of the fineſt quality.

THE manufacture of this article in Bengal, is carried on to a conſiderable extent. Many expenſive buildings have been erected for the purpoſe in different parts of the province. Theſe are, in general, under the ſuperintendance of Europeans; for the natives, even when you continue to make them labour on their own account, carry it on invariably with little execution or diſpatch. Their principal excellence conſiſts in the ſmall expence, and the inconſiderable capital with which they conduct their operations.

* Vide Gibbon's Decline and Fall, &c.

rations. In this country, where the rate of intereſt is generally twelve per cent. and ſometimes much higher, this ſaving of capital operates powerfully in their favour. There are, at this moment, many inſtances in every part of Bengal, of Europeans, who, by ſinking an enormous capital in buildings, and implements, have incurred a debt, from which all their ingenuity, ſkill, and application, could never afterwards retrieve them.

THE ſucceſs of a branch of manufacture, which affords labour and ſuſtenance to many thouſands of our fellow creatures, muſt be regarded as an intereſting object; but there are ſome departments in this labour for which you could have no partiality. The houſes in which the inſects are kept, are infeſted with a noiſome ſmell ariſing from the inſects themſelves, or their excrements, and rotten leaves: the heat of the ſtoves is an addition of no comfort in this climate. The populous village of Coſſimbazar, celebrated for an extenſive ſilk manufactory, has been, for many years, at leaſt equally infamous, for the deſtruction of the lives of vaſt numbers of the natives. It muſt be acknowledged, indeed, that upon inſtituting an enquiry into the cauſe of this mortality, it did not appear to be ſolely owing to this cauſe.

THE inveſtment of the Company in ſilks, amounts annually to a conſiderable ſum: what is produced by private adventurers, and exported on their own account,

account, cannot be eaſily aſcertained; but may perhaps be little inferior in quantity.

THE natives are in general bad cuſtomers even for their own manufactures. Their vanity and taſte for ſhew exacts from them, however, a conſiderable ſum for ſilk ſtuffs. Fabrics of this material are uſed in ſeveral articles of dreſs among people of rank of both ſexes Their ſilk ſaſhes are remarkably expenſive and elegant. The ſame taſte is diſplayed in their ſhoes, which are made up of a very thick and rich ſtuff, embroidered in a ſplendid manner with ſilver and gold.

THE different articles manufactured in ſilk; their quantity, and the number of hands employed in them, ſhall afterwards be more particularly detailed.

CULTIVATION

## CULTIVATION OF THE DISTRICTS OF MONGHEER AND PATNA.

* * * * * * * * * * * *

*Mongheer*, 1798.

THE agricultural operations put on a very different appearance here from what I have noticed any where in the flat country of Bengal. That large plain which conſtitutes this rich and extenſive province, is bounded on the eaſt by the Barrampooter; and on the weſt by the Ganges, or rather by the hills which confine it. A thouſand branches and intermediate ſtreams water the interjacent lands, which being uniformly on a level with them, imbibe moiſture, and preſerve perpetual verdure. On the exterior banks of theſe great rivers, the country riſes into gentle hills; which, as you advance, ſwell into high mountains.

THE land towards the bottom of the hills being above the level of both rivers, derives no fertility from them

them in any ſeaſon of the year. In theſe diſtricts, induſtry ſupplies this defect of natural moiſture. Towards the end of the rains the fields are well plowed in the ordinary manner: but before ſowing the ſeeds, they are divided into little ſquare plots, reſembling the chequers of a backgammon table. Each ſquare is ſurrounded with a ſhelving border, about four inches high, capable of containing water. Between the ſquare chequers thus conſtructed, ſmall dykes are formed for conveying a rivulet over the whole field.

As ſoon as the water has ſtood a ſufficient time in one ſquare to imbibe moiſture, it is let off into the adjoining one, by opening a ſmall outlet through the ſurrounding dyke. Thus one ſquare after another is ſaturated, till the whole field, of whatever extent, is gone over. The fields watered in this manner, require a laborious preparation with the hoe, and even the hand, to conſtruct the dyke and aqueducts: but their extreme beauty and fertility compenſates for the labour.

The fields in this neighbourhood are at preſent under this operation; and they reſemble a flower-garden in neatneſs and beauty, rather than the coarſe operations of huſbandry. A great variety of leguminous plants, muſtard, caſtor oil, as well as opium, barley, and other grain, are ſeen ſpringing up in theſe little ſquares, in the greateſt regularity, and without a weed.

The

THE poppy for the opium is ſown on this ground, which ſeems more than any other crop, to require a careful cultivation.

THE number of hands all buſy in different proceſſes of this work, gives an impreſſion of the induſtry of the cultivators of thoſe parts, which you in vain ſearch for among the Ryuts of the plain.

THE very act of procuring ſufficient ſupplies of water is itſelf laborious. It is here drawn from wells, ſeveral of which are dug to a great depth on the top of every ſwell in the field. It is raiſed in large leathern bags, pulled up by two bullocks yoked to a rope. The cattle are not driven in a gin as ours; but retire away from the well, and return to its mouth, according as the bag is meant to be raiſed, or to deſcend. The rope is kept perpendicularly in the pit, by a pully, over which it runs.

FROM the mouth of the well thus placed, rivulets are formed to every part of a field; which, in this ſeaſon, becomes ſo parched, that a whole day may prove inſufficient to water it copiouſly. The operation, however, muſt, at ſhort intervals, be continually renewed, ſince no rain falls during the four enſuing months.

GRAIN in diſtricts ſituated like Monghеer, muſt be raiſed at thrice the expence with that produced in the plain: to me, therefore, it appears unaccountable, that

that ſo much of the rich deep loam of Bengal, ſhould be left in all the wildneſs of nature, while the riſing grounds are cultivated at ſo much expence of labour, and that too almoſt in the ſame neighbourhood.

But all here is managed with activity, and perſevering diligence. While the new crop is thus preparing in the field, the women are buſy in the houſes, grinding the former one in mills, and getting it fitted for the market, or for immediate uſe. Till this can be accompliſhed, it is kept in perfect preſervation, by being heaped up in ſmall round huts, conſtructed of reeds, and neatly thatched on the roof.

The culture of the diſtrict of Patna is far ſuperior to what you generally meet with in Bengal. For ſeveral miles around the adjoining villages of Bankipore and Dinapore, the fields aſſume the appearance of a rich and well-dreſſed garden. Every part of the country is now beginning to be parched with drought; and here the operation of watering the fields is caried on with perſeverance and ſpirit.

Each well is ſupplied with a number of hands, who labour the whole day drawing water to ſupply the rivulets, by which it is conveyed through all the adjacent fields. The ſurface of the ground in this flat part of the province of Bahar, does not riſe more than thirty feet above the level of the Ganges; and in many places its elevation is ſtill more inconſiderable. Hence the water in each reſervoir is perhaps

not more than two or three fathoms from the ſurface: and the means uſed for raiſing it to that height are extremely ſimple. Two long bamboos are raiſed upon a frame about ten or twelve feet, theſe are wrought like levers by a weight attached to one end, as the moving power which raiſes the leathern bags to the mouth of the well. A man's ſtrength pulling down the rope is neceſſary again to ſink them for each ſupply.

THESE erections you ſee at every two or three hundred yards as you paſs along the road; while the chequered fields on each ſide of it, put on a moſt luxuriant and rich appearance. The moſt common crops are cotton, dohl, and the caſtor oil plant: the latter riſes to the height of a large ſhrub; and ſhelters below its broad leaves the dohl, and cotton ſhrub. Theſe three articles are frequently blended together, and their joint produce muſt prove very conſiderable, as they ſeem each an abundant crop.

BARLEY alone, or mixed with a kind of ſmall pea, is alſo a very common produce in this vicinity. Very extenſive fields are now preparing for it; and there are many more where it is already ſown, and has riſen a few inches above the ground. This grain is expoſed in great quantity for ſale in the Bazars; but it ſeems not to be of equal ſize or plumpneſs with the growth of Britain. Behar muſt prove too warm a climate for this grain, as it certainly is found to be for oats. Wheat, however, is excellent in

in quality, and is ſaid to be abundant. Forty ſmall loaves, about the ſize of our penny bread, are ſold for a rupee; their quality is perhaps ſuperior to what is generally met with in England. Wheaten bread is therefore much cheaper here than in Britain; though it be more expenſive than any other farinaceous food, and therefore not generally uſed by the natives.

ALMOST every common article of food is here remarkably cheap; fowls from ſix to ten a rupee; and ducks at nearly the ſame price. Turkeys, though cheaper than in Calcutta, are ſix rupees each; a circumſtance which ſeems to evince a degree of improvident indolence in the natives, bordering on ſtupidity. In this climate that bird is not ſo difficult to rear as it is in Europe. A woman therefore, who, in a year, could breed, and bring an hundred to the market, would ſecure an independent fortune to her family for the reſt of her days: ſhe would receive ſix hundred rupees; a ſum which, at the common rate of intereſt, yields ſix rupees per month, an income ſufficient for the maintenance of a pretty large family. From this, though you deduct a plentiful allowance for grain, there will ſtill remain a ſufficient profit to ſtimulate the indolence of any being but a Hindoo.

THE retail price of gram in the Bazar is only one rupee for ſixty-four Engliſh pounds, or thirty ſeer; while rice and dohl are ſomewhat lower. Theſe prices

prices are noted here, as the preſent ſeaſon is neither remarkable for ſcarcity nor abundance; and as the town of Patna is perhaps the moſt central part of our territories in this part of India, it muſt have an influence upon the whole.

DINAPORE, which lies about fourteen coſs weſt of Bankipore, is a military cantonment built by the Company on the ſame elegant and magnificent ſcale with thoſe at Berhampoor and Calcutta. It is ſo very extenſive that every officer enjoys nearly three times the accommodation afforded by any of the barracks in England. The private ſoldiers are alſo provided with large and well aired lodgings; but the troops belonging to the native battalions are quartered in ſmall huts a little ſuperior to thoſe of the natives. To them, this inſtead of a hardſhip is a luxury; for their former condition is not forgotten, when they were not lodged ſo comfortably.

AT Moneer, about ſix miles farther up the river, the Company has alſo erected cantonments for cavalry, equally commodious. The concourſe of Europeans at theſe two ſtations, and at Bankipore, has probably a conſiderable effect upon the markets; for it is univerſally allowed that they are charged higher than the natives for every article. It is indeed the intereſt of all the black ſervants they employ in purchaſing neceſſaries in the Bazar, that the price ſhould be high, as in that caſe there is

more

more room left for their *dustour* *, which is a deduction of a part of the price from the merchant on paying his bill, and is claimed by the ſervant.

FROM this circumſtance, the Bazar prices mentioned above, are to be conſidered rather above than below the ſtanding rates paid by the natives.

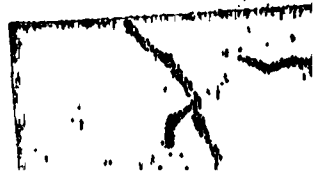
WHATEVER enhances the value of produce, neceſſarily rouſes and invigorates the operations of agriculture; cultivation is accordingly very extenſive in this diſtrict, and better conducted. The crops ſeem abundant; while many of the fields in the vicinity are adorned with excellent hedge-rows, interſperſed with flowering ſhrubs, which give that peculiar richneſs and beauty to the ſcenery to be met with in tropical climates.

AT Bankipore, one of the ſuburbs of Patna, the Honourable Company's civil ſervants reſide. Their provincial court of appeal, its regiſter and clerks; the zillah or criminal court; and the city court, with the commercial reſident, collector, and other agents of the Company, compoſe a pretty numerous eſtabliſhment, with liberal appointments. Theſe Gentlemen, with the Officers of the King's and Com-

* Literally rendered *cuſtom*, a perquiſite of every black ſervant purchaſing goods for his maſter.

Company's troops, conſtitute the ſociety at Patna, from which private traders, not in the ſervice, are excluded, agreeably to the etiquette of India, which has formerly been noticed.

DESCRIPTION



## DESCRIPTION OF THE CITY, AND THE AGRICULTURE OF THE DISTRICT.

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*Benares,* 1798.

In our progreſs from Patna to Buxar, Gazipour, Benares, and Mirzapour, much cultivation, and a rich paſſage of country, preſents itſelf to the eye of the traveller: at the laſt mentioned place, however, his approbation muſt ceaſe: both ſides of the Ganges a little way above that village, are ſubject to the Nabob of Oude, whoſe territories, in defiance of the bounty of nature, diſplay an uniform ſteriility.

Mirzapour is remarkable for the induſtry of the natives, who are here ſtimulated to exertion by a few active Europeans engaged in the indigo buſineſs; in the manufacture of a very durable carpetting, and in the raiſing and exporting of cotton, with ſeveral other branches of trade, which are all conducted with much enterprize, and conſiderable ſucceſs.

Therr

THERE is here but little land employed in the culture of rice; and the preſent ſeaſon is not the period of that crop. The prevailing articles of produce are barley, wheat, and ſeveral ſpecies of the pea. A ſmall quantity of flax is raiſed on the ſkirts of almoſt every field for the ſake of oil; its uſe as an article of clothing is not here underſtood. The moſt luxuriant and rich crop exhibited here at this ſeaſon, is a mixture of the dohl plant with that of the caſtor oil and cotton plants. The two former riſe from ſix to eight feet high; aud are nevertheleſs outſtripped by the *badgerrow*, another meagre kind of grain which makes a part of this mixed produce.

THE barley is juſt coming into the ear, and is at preſent remarkably beautiful. Every field of it contains a mixture of gram or peaſe; and at the diſtance of ſix or ten feet there is planted a beautiful yellow flowering ſhrub, uſed in dying. The operation of reaping, at which the ſeparation of theſe different articles is made, muſt prove both tedious and complicated. The atmoſphere which is here at preſent ſo cold, that fires are very comfortable, becomes ſo heated for three months after March by the ſetting in of the hot winds, as to deſtroy all verdure. Thoſe fields which at preſent wave with luxuriant crops are then ſcorched like a deſart, and are covered with clouds of duſt. So trying are the hot winds to every vegetable production, that older European inhabitants ſeem to think it would prove deſtructive to all our artificial graſſes. This, how-

ever,

ever, is a matter which ought to be brought to the deciſion of experiment, and not left to opinion.

TURNIPS, radiſhes, and a variety of greens and garden ſtuffs, are raiſed here by the natives principally for Europeans, and expoſed to ſale in the Bazars: where you find all the various produce of the country neatly put up in baſkets, and ready to be ſerved out in any quantity.

THE fort of Chunar is ſituated upon a freeſtone rock, ſeveral hundred feet high; as it is provided with guns on that ſide it completely commands the river, though it is probably of no great importance in a military point of view; but the proſpect into the adjacent country from its ſummit, is one of the fineſt imaginable: below, the Ganges winds along in a magnificent ſtream: the woods, villages, and corn fields in all directions, form an admirable group; while the diſtant hills on the ſouth communicate a grandeur to the ſcene that is ſeldom to be found in any country.

WITHIN this fort the Company have large and well conſtructed magazines, in which is depoſited a great quantity of ammunition, guns, carriages, and every kind of warlike ſtores. The town itſelf is a ſtraggling collection of native huts, and European bungalows, without uniformity; and ſpreading into the country ſeveral miles. At certain ſeaſons of the year Chunar is oppreſſively hot, and ſaid to be very

unhealthy: indeed the European and Mahommedan burying grounds are ſcattered in every direction, and occupy nearly as much ground as the town itſelf.

In point of health, Benares muſt be ſtill more hoſtile: the ſtreets are only a few feet broad, confined with high buildings on each ſide, ſo that the rays of the ſun can hardly penetrate the bottom of the lanes, which are impervious to wind, and covered with cow-dung, foul water, and every kind of filth. That the plague ſhould occaſionally break out in eaſtern towns is unavoidable: here it is unknown, though you are rather ſurpriſed how human beings can ſupport life in ſuch a noxious atmoſphere.

At Benares the number of Europeans is very ſmall: a judge, regiſter, collector, with a few civil ſervants, conſtitute the whole of the Company's eſtabliſhment there; a few private merchants and planters make up the whole ſociety. Of natives, however, the number is great; and many of the bankers are the principal creditors of the India Company, and poſſeſs immenſe fortunes. The poor in Benares are ſtill more numerous, owing to the number of pilgrims who come from all parts to viſit ſo ſacred a place. In going into a moſque, thouſands crowded around us, ſoliciting charity with an importunity I never before witneſſed, and which I could not then reſiſt. Hunger, wretchedneſs, and diſeaſe

ſeemed to meet your eye in every direction: what increaſed our uneaſineſs was the impoſſibility of affording any relief to ſuch crowds; where famiſhed multitudes preſſed forward to ſucceed ſuch as you had ſent away with a pittance of ſupply. It is not any ſcarcity, or any extraordinary degree of poverty that occaſions this concourſe of beggars, but the number of pilgrims who come from all parts for the purpoſe of devotion and charity: and wherever there is a fund for the poor, there will in every country be found a ſufficient number to conſume it: begging, hard as it ſeems, is ſtill eaſier than labour; and where it anſwers the ſame purpoſe, that of ſubſiſtence, it will often be preferred.

The celebrated ſeminaries of Hindoo learning in this place, have been mentioned by almoſt every writer on the ſtate of Hindoſtan, and for that reaſon I entirely omit them, from a conviction that their fame has been raiſed far beyond the ſtandard of their merit. They ſeem at preſent to be in a pitiful and languiſhing condition. The grand Mahommedan moſque built by the fanatical Aurengzebe, on the ruins of a Hindoo temple, has lately been repaired by Mr Haſtings, and conſtitutes an immenſe irregular pile of building, with which I know nothing to compare it. There are certain libraries of Sanſcreet books, which are now acceſſible to Captain Wilford, Mr Wilkins, and other Europeans, who are acquiring a knowledge of that language; but it will probably ſoon be found that our hopes of acquiring knowledge

knowledge from that quarter have been too ſanguine.

Of the population of Benares, I am unable even to form a conjecture: the ſtreets are ſo narrow, and the buildings crowded to ſuch a degree that you can have no conception of the number of people they contain: they are two, three, and four floors in height, which you ſeldom meet with in the dwellings of natives. The province, which obtains its name from the town, although ſometimes roughly treated, ſince its connection with the Britiſh, is at preſent in a ſtate of great proſperity, when compared with the diſtricts north of it. So great is the ferocity, and ſtate of deſperation to which the Vizier's ſubjects are reduced, that they frequently make excurſions, and plunder the neighbouring villages. Treated always with injuſtice and rapacity, they ſeem to have loſt in a great meaſure their ſenſe of right and wrong, and ſcruple not to behave to their neighbours in the ſame barbarous manner that their ſuperiors treat them. A brutal *aumil*, on a farmer's inability to pay his rent, ſeizes all his effects, even his wife and children; and has ſometimes been known to burn the unfortunate object of his vengeance in the flames. With ſuch examples of ferocity continually diſplayed by their rulers, what can be expected of the people? they are ſtrangers to every principle of juſtice and of mercy.

When

WHEN employed in viewing the curioſities of Benares, I received a letter from London, acquainting me with the fate of the miſſion intended to be ſent to this *mint* of heathen ſuperſtition: it ſeems the members of it were refuſed permiſſion to ſail for India by the Court of Directors, from an apprehenſion that they would mix politics with religion. In all probability the idea was juſt: perſons incapable of obſerving a peaceable conduct at home, are of all men the moſt unlikely to propagate the doctrines of peace and forbearance in India. With regard to the natives, it is probable that their doctrines would have no effect whatever; that ſteadfaſtneſs of faith, or obſtinacy in error, which enabled the Hindoos to reſiſt every effort of Mahommedan zeal, is not likely to be moved by the myſterious jargon of our ſemi-political divines. The inſtruction of youth is at all times worthy of attention; but I do not learn that this entered much into any of the plans adopted by theſe wiſe men. I have already, if I remember right, given you my ideas upon this ſubject; and I have only to add that I conceive this meaſure to be one of the moſt chimerical and viſionary ever attempted. Happily for the projectors, they have been ſtopped at an early period of their progreſs before they had an opportunity of diſplaying the whole extent of their folly.

WHAT impreſſion the harrangues of a ſet of men entirely idle, and noted for their diſcontents at Government, might have on the civil and military ſervants

vants of the Company, I pretend not to ſay: it is probable that in this line their labours might not prove ſo abortive as in converting the Hindoos.

THE education given at Benares is chiefly inſtituted for the Brahmins; that of the common people is extremely limited, but to them highly uſeful, and obtained at no great expence. Almoſt in every village there is a perſon employed in teaching the youth to read and write. As few books are entruſted to the peruſal of the great body of the people, the amount of their learning is to form the characters, and to read manuſcript; and it is ſurpriſing how many, even of the loweſt ſervants, are able to keep accounts. I have found a Muſſulman capable of this who could not read a ſentence of the Coran. Here writing and reading are taught at the ſame time; the boys are collected upon a ſmooth flat of ſand, and with the finger or a ſmall reed form the letters there, which they learn to pronounce at the ſame time. As often as the ſpace before each ſcholar is filled up with writing, it is effaced, and prepared for a new leſſon: thus the expence of both pens, ink, paper, and even a houſe, is avoided.

ON

*Benares, July* 29, 1798.

I AM abundantly ſenſible, that by perſons of much practical knowledge of the ſubject, I muſt have been convicted of keeping too much to *generals* in my deſcription of the Hindoo farming. The truth is, it is ſeldom ſafe for an European to do otherwiſe. There are few opportunities of getting a complete enumeration of facts from any farmer here: they are miſerably poor, and ignorant: we are generally equally unqualified, by our want of language, to draw from them what little information they might be able to give.

FORTUNATELY I have met here with a very intelligent Soubadar†, in the Hon. Company's ſervice; who,

† Ram Jeet Sing.

who, from his knowledge of the Engliſh language, has aſſiſted me to meet, I will not ſay to overcome, this difficulty. His eſtate lies upon the Dergauttic river; about 36 miles from Benares, and conſiſts of 4000 Cutcha Biggahs, or 1500 pukka, equal to 500 acres. The annual rent he pays to government is 900 rupees; and according to the preſent mode of letting, his own gains ſhould annually conſiſt of 100 rupees, at preſent about 12 pounds of our money. Such are the profits of the farmer of five hundred acres to a man of rank who has under him ſeveral hundreds of Ryuts and tradeſmen. Government is therefore, according to all our ideas, the proprietor, and this gentleman, who fancies himſelf the owner of an eſtate, is in truth a factor for the Company, with an allowance of ten per cent. for collecting its rents.

Thus you obſerve, that nine-tenths of all the rent of Bengal and the provinces conſtitute the revenue of the Company; who are, in room of the Emperor, the true proprietors of the ſoil. That ſo vaſt a tract of country, naturally the moſt fertile, ſhould yield ſo ſmall a ſum as the known revenue, ought, beyond all I am able to write, to convince you of the wretched ſtate of agriculture in India. Lands of a ſimilar quality with thoſe I am now giving you an account of, would, with the worſt huſbandry practiſed in any part of Britain, yield more than five times the ſum!

Of this eſtate nine hundred pukka biggahs are under the plough: and the crops are barley, wheat, peaſe,

peaſe, cotton, ſugar, muſtard, flax, and rice. The quantity of grain applied as ſeed, is eſtimated by the ſeer, which is either pukka or cutcha, correſponding to the two kinds of ſquare meaſurement. To a cutcha biggah of wheat twenty cutcha ſeer of ſeed is the common allowance; while double the quantity, or 30 ſeer, of barley is the neceſſary proportion of that grain; and fifteen ſeer the ordinary allowance for a rice field.

In ſome caſes rice is tranſplanted, after its removal from the field in which it was ſown. In ſuch inſtances about three times the quantity of ſeed uſually given is thrown upon a ſmall ſpace in the corner of the field: there it remains till it has riſen about twelve inches in height; when it is taken up by the root, and planted in the field which is then covered with about three inches of water. This is the grand ſeaſon of buſineſs with an Hindoo farmer: when his concerns abſorb thoſe of every other man's belonging to his community. He has then a preſcriptive right, eſtabliſhed by the practice and uſage of ſome thouſands of years, to call out not only all the artiſts of the village, but their women and children, to his aſſiſtance, though the hurry of buſineſs ſhould continue a week or two.

In one of the Weſtern Iſles of Scotland, which you have ſeen, it is ſaid that all the inhabitants turn out in the ſpring, and unite their labour in tilling the ground. In that mountainous ſpot the operation

muſt be performed with hoes, ſpades, or pointed ſticks, becauſe no cattle there can drag a plough. The buſtle, jollity, and confuſion which then obtains gives a freſh animation to the ruſtics, in this operation, which they in their jargon call the *Grand Powter*. Planting a rice-field near a village is the *grand powter* of the Hindoo peaſants; when they diſplay a degree of alertneſs and vivacity, which, for a while, overcomes the phlegmatic indolence of the race.

The grain being thus planted, an additional ſupply of water is let into the field, to accelerate its growth, or rather to enſure its taking root. This water, after ſtanding a few days, is drawn off, and a freſh ſupply let in; but the neceſſity of this meaſure I have not been yet able to learn. So rapid is the progreſs of vegetation in Behar, that the firſt harveſt comes on in two months after planting the crop: the ſecond is reaped in November, and having been planted in Auguſt, may eaſily ſucceed on the ſame field. This is commonly a finer ſpecies of rice, and conſtitutes the moſt valuable crop, upon the ſucceſs or failure of which the circumſtances of the farmer, and of the country, in a great meaſure depend.

By what I have here and elſewhere ſubmitted to you, you will obſerve, that there are three harveſts in this part of India; two of rice in the ſummer and autumn, and one in the ſpring, conſiſting of wheat, barley, and peaſe. Should, therefore, the improvident indolence of the farmer, an adverſe ſeaſon, or the hoſtili-

ty

ty of the Ganges, diſappoint his hopes, he has ſtill an opportunity, by new efforts, of retrieving his affairs—The ſeaſon, a ſecond and third time, not only invites him to the meaſure, but powerfully ſeconds his endeavours.

THE reaper has in this part of the country his labour paid for in kind: when employed in cutting the more valuable grains, as wheat and barley, he receives for his wages the twentieth ſheaf; of the coarſer kinds, he claims the tenth part. This tithing ſheaf is ſelected by the reaper himſelf and the ryut alternately.

RICE and barley, with the various kinds of the pea, are, either ſeparately or mixed, the grand ſupport of the labouring poor. Wheat is raiſed and ſold for the uſe only of the higher ranks; even barley is too expenſive for their daily fare: and, for that reaſon, its flour is mixed with that of peaſe when uſed by the common people. Fried grains, ground by a hand-mill, day by day, and made into a kind of porridge, is held the moſt ſubſtantial diet a peaſant can aſpire to: this he may mix with vegetables and ſpices which are cheap. Even the finer ſorts of rice are raiſed for the market, for it is of the coarſer only that the labourer's earnings will allow him to partake.

SUCH is the lot of millions of the moſt uſeful of mankind: their houſe and cloathing would not ſell for

for a rupee, and their highest luxury is a mixture of grain, which they can hardly afford to season with as much salt as you may hold between the finger and thumb. With you the poor are discontented if they can get flesh-meat and tea only once or twice a-day: they wring your heart with pity, if they are reduced to the necessity of drinking water for a few days Millions here have tasted no other beverage from their entering upon life till their exit; and of this circumstance they never complain, because it would be treated as ridiculous. What pity is it that your malcontents will neither listen to the sufferings of others, nor enjoy the advantages belonging to themselves; though by such discontents national benefits are lost, and misery is incurred!

VIRGIL never saw a peasantry half so plentifully supplied as the English; and in fact, there were few worse than his own: I may surely apply to your cultivators what he has said of the Roman slaves:

*O fortunatos nimium sua si bona nôrunt*
*Agricolas!*

WHEN I wrote you from Benares an account of the Sugar Harvest, the season did not afford me an opportunity of describing the manner of raising that crop. The cane is planted in January, by burying small cuttings of about 12 inches each, that are taken from a small portion kept for seed—One cutcha biggah requires four hundred such cuttings; and must be

be watered from four to ſix times before the commencement of the rains. After each watering the ſoil becomes hard and clayey, and muſt be rendered friable by the hoe twice during each interval. Bengal, from its peculiar moiſture, does not ſubject the farmer to theſe coſtly operations. On further experience it will be found the moſt favourable country for this kind of produce that is yet known.

In this neighbourhood the fertility of the ſoil, great as it certainly is, will not admit of a ſucceſſion of ſugar crops. The land muſt be relieved for a year or two with other grain, before the ſugar can be a ſecond time produced. Sugar lands, I find, yield the higheſt rent; being let, on an average, at two rupees the cutcha biggah, or about two pounds an acre—The average produce is ſaid to be from fifteen to thirty mauns each biggah. Four different kinds of the ſugar cane are diſtinguiſhed by our planters, and of different degrees of eſtimation. The China ſugar has hitherto been preferred to that of Bengal; but it chiefly derives its excellence from a more ſkillful mode of purifying it practiſed in that country. On this account, an attempt was made by Mr Crawford at Chipſagur, to introduce the Chineſe ſugar culture, and the whole proceſs of refining by a colony of natives of that country. This patriotic effort terminated like moſt others that had to compete with the cheap manufactures of Bengal. The expence of labour ſo much enhanced the price, that the Bengaleſe underſold it in every market.

In

In this ſlight ſketch of the Hindoo agriculture you muſt beware of ſuppoſing, that the condition of theſe miſerable wretches is included who inhabit the hilly country and its jungles. They are as different from the inhabitants of the plain, as a North Highland farmer is from one in Kent. They are in the ſtate of uncultivated nature: they neither plow nor ſow; what grain they raiſe is introduced into ſmall holes made with a peg and mallet, in a ſoil untouched by the plough. The only preparation given it is turning away the jungle, and thus depoſiting the ſeed. In the vicinity of Rajamahl there are many tribes of ſuch peaſants, who ſubſiſt partly by digging roots, and by killing birds, and noiſome reptiles.

In theſe ſavage diſtricts ninety villages have been let for two hundred rupees; and yet this paltry ſum could only be made up by fruits peculiar to the ſituation. All that I have ſaid of the indigence and humble fare of the other Ryuts is ſo far outdone by the condition of theſe beings, that I will not venture to lay before you the account I have received of them: the faith even of a true believer may be put to a trial too ſevere: and the teſtimony of a tolerable hiſtorian may be inſufficient to eſtabliſh facts ſo remote from the ordinary occurrences of life.

## DESCRIPTION OF A VILLAGE IN BENARES DISTRICT.

. . . . . .

*Benares*, 1798.

THE mode of living, and the climate of India preclude Europeans, in a great meaſure, from acquiring any intimate or minute knowledge of the manners of the natives. Unleſs I had made particular enquiry for the expreſs purpoſe of laying before you the following account of a village, I might have remained in this country for half my life without any knowledge of the very partial detail which I now intend to preſent to you.

THE inhabitants of the ſmall zemindary of which you lately had a deſcription, live together in one village, which contains about one thouſand ſouls; a population of nearly one perſon to each Scotch acre; and twelve individuals to each plough. The number

of working cattle on this property is four hundred; that of ploughs ninety.

After the Zemindar, the perſon next in rank and importance is the *Putwari*, the factor or keeper of accounts between the proprietor and tenants: he collects the rents whether in grain or in money, meaſures the ground, and in the abſence of the Zemindar ſucceeds to any petty juriſdiction which the ſmall ſociety may require. In him you may recognize the Baron Bailie of Scotland: the ſalary of this officer is paid by the farmer at the rate of one ſeer and a half each for every hundred paid to the proprietor. Sugar, cotton, and other articles not conſumed on the eſtate, pay a certain portion of their valued price to the landholder, and for each rupee paid to the landlord the Putwari receives half an ana, or the 1-30th part nearly.

The Byah, or weigher of grain, is the next to the Putwarri; this man divides the grain between the zemindar and the tenant by weight in their reſpective proportions. The Byah is paid by both parties at the rate of twelve ſeer for every hundred mauns.

From the mean habitations of the farmers, and their ſcanty and wretched implements of every kind, I had conceived that there were but little diviſion of labour, and few profeſt tradeſmen. Iron ſmiths and carpenters make two ſeparate profeſſions in the ſmalleſt village. A *Sochar* or maſter tradeſman receives

ceives from each plough a maun of grain, conſiſting of a part of each ſort. This is in the nature of a retaining fee, and muſt be paid annually over and above his allowance when actually employed in your houſe. As often as you have occaſion for his ſervices there, whether in conſtructing the building or making furniture, he is entitled to a daily allowance of one *pukka* or great ſeer of grain. During each of the three harveſts he receives one ſheaf of wheat, barley, or rice, according to the nature of the crop then reaped. This ſheaf is not undefined in quantity, but conſiſts of about three ſeer.

WHETHER it ariſes from indolence or ſuperſtition, I am unable to determine, that the pooreſt Hindoo families do not waſh their own cloaths; it is certain however that each village retains a number of waſhermen as a diſtinct profeſſion. The waſherman receives from each plough twenty ſeer of grain annually; and three ſheaves during the three harveſts, as in the caſe of the other tradeſmen already mentioned. The families of tradeſmen, who have no plough, pay the waſherman in ſpecie at the rate of two annas yearly. A ſum not exceeding four-pence of Britiſh money annually, is certainly a ſmall allowance; but you will recollect that the quantity of clothing uſed by a family of Hindoo peaſantry, is not the fortieth part of what is neceſſary for one of your tenants. The children, till they are ten or twelve, ſeldom put on any clothing at all; and after that ſeaſon a ſmall piece of cloth covering the middle, is

the whole attire of the lords of the creation in this country. Waſhing to Europeans in this country is performed by a ſervant hired by each individual, at the rate of from eight to ten pounds annually, a very ſmall ſum, if you advert to the quantity of work. Here our whole dreſs is white cotton, and muſt on account of the heat of the climate be changed twice or thrice every day *.

The ſuperſtition of the country occaſions another profeſſion not common in your villages, that of a Shaver. Part of the beard, the arm-pits, &c. are regularly ſhaved even among the loweſt claſſes. As one perſon in this capacity can accommodate a conſiderable number of individuals, his wages are ſettled at one ana, or two-pence ſterling per annum; a plough giving twenty ſeer.

The greater part of cooking utenſils, and veſſels for holding water, are of earthen ware; ſeveral of theſe are in daily uſe in each family, and from their frangible nature the conſumption of them is conſiderable. This occaſions the trade of a potter to be univerſal in every village of the country. The potter receives from each plough his three ſheaves in the three

* In ſome parts the waſhermen are entitled to five ſeer of grain for waſhing the child-bed linen at each birth. The waſhing is not performed within doors, nor by putting the clothes in veſſels as in Europe; but at the ſide of a tank or river, and by ſtriking them againſt a curved plank of wood.

three ſucceſſive harveſts; he is paid beſides for each pot according to its ſize; only the zemindar has his at half price, and cuſtom alſo obliges the potter to provide utenſils for ſoldiers, or ſuch travellers as may paſs the night in the village. Earthen pots are very common through all Aſia; and by what we read concerning the "potters field," they ſeem to have been in uſe in Judea, and to have had an allotment of ground for their manufacture. In India the ground is furniſhed by the proprietor, and for this reaſon he is ſupplied at an inferior price.

THE loweſt, and moſt deſpiſed order of tradeſmen in India, are the *Chumars*, or leather-cutters. The Chumar receives in harveſt three ſheaves from each plough; but beſides this annual fee he is paid for every ſet of ropes or harneſs he furniſhes for a plough two ſeer and an half of grain. For each pair of ſhoes the cuſtomary price is ten ſeer of grain: tradeſmen pay two anas, which is deemed in ordinary times a higher price; but they pay no part of his annual fee of three ſheaves: when cattle die the hide goes to the Chumar.

THE bad police of the Eaſt impoſes the neceſſity of employing watchmen during night to protect the property of individuals, and to preſerve the peace. This buſineſs is committed to the Duſſauds or Chockidars, ſeveral of which are required even in ſequeſtered villages. The nature of their employment inveſts theſe people with ſome power reſembling that

that of a conſtable. They apprehend delinquents, or report diſturbances to the magiſtrate. Like all other ſervants of the public in this country, the Chockidars have an annual fee of three ſheaves from each plough during the harveſt: ten biggahs of ground are allowed to each for his ſupport; and as ſeveral are neceſſary, the police of the country, imperfect as it is, conſtitutes a heavy burden on the community. In the vicinity of Europeans there is a greater circulation of property, and of conſequence greater temptation to the violation of it. Even in our military cantonments an officer can by no means truſt the charge of his houſe to ſentinels; he is obliged to hire two or three Chockidars, the only terms upon which he can hope for ſecurity. Without this precaution, the thieves have attained to ſuch dexterity in their trade, that they can eaſily ſteal the pillow from under his head during night.

The moſt numerous claſs of labourers in a country village is that of the ploughmen. In this village they amount to about an hundred; and the wages of each is five ſeer of grain daily, and one rupee each *hulwary*, or ploughing ſeaſon: two ſtated ploughing ſeaſons occur each year, one at the ſetting in of the rains in June; the other after they break up in November. The wages of other country labourers is five ſeer of grain per day; and during harveſt the twenty-fifth ſheaf.

The

THE *Ahcer* or *Burdiah* (cow-herd) is another neceſſary profeſſion in every Hindoo farm. The ploughed land is neither fenced nor lying contiguous, but in ſcattered and detached ſpots, perfectly expoſed to every invader. The cow-herd receives two mauns of grain each month; and for every ten cows under his charge he receives the milk of one: if buffalos are under his management he is entitled to the milk of every fifth beaſt. The cauſe of this difference I have not learned; but conceive it to be the greater trouble occaſioned by keeping theſe bulky and obſtinate animals. The paſture is common to the whole village, and the tradeſmen graze cows on paying their proportion of the cow-herd's fee, which is two anas per month for each buffalo, or the milk of the cow every fifth day. Sometimes the paſture fields lie far from the village; to it however they are driven; and ſhould it be neceſſary to croſs a river, the cow-herd lays hold of the tail of a buffalo, and tranſports himſelf to the further ſide with great eaſe. In the community of the paſture grounds, the joint poſſeſſion of ſeveral tenants, and the payment of rent in kind, you will perceive a ſtrong ſimilarity to the practice of certain diſtricts in the Highlands of Scotland.

THE two trades I am next to deſcribe, are ſo different from every profeſſion to which European manners give riſe, that I beg leave to refer you to the authority upon which this narrative is grounded; for

I here wiſh to diſclaim all reſponſibility, as well as merit, in giving the information they may afford.

THE trade of a *Barhi* is to prepare diſhes of leaves from which the Hindoos eat their food. In Bengal the plantain leaf is ſo common, and from its ſize ſo commodious for this purpoſe, that the object is attained at once without the intervention of profeſſional ſkill; but in the upper provinces there is no ſingle leaf which can ſupply the place of the plantain; an artificial combination is made up by patching different leaves together, which forms a ſubſtitute for a plate at the Hindoo meals. Five or ſix different kinds of leaves are employed for this purpoſe, according to the produce of each diſtrict. In all, however, the manufacture is carried on; and for every hundred plates furniſhed by the Barhi, he receives two anas; the zemindar paying only half that ſum, either becauſe he affords a houſe to the Barhi, or becauſe he takes the leaves from his trees. During feſtivals and religious ſolemnities, the Barhi carries a torch, and performs the office of a Muſſalgee.

THE other profeſſion alluded to is that of *Bhaut*, or poet, a perſon who celebrates the family, and the atchievements of his patron; and indeed of every one who employs him. He is recognized as a member of the community, and has an annual fee of three ſheaves from each plough of the village. Should a man's vanity lay him under no contribution, he has nothing more to pay to this officer. A ſhare of this,

this, however, falls to the lot of many; and to gratify it they call upon the Bhaut to compoſe a poem in their praiſe; for every ſuch compoſition he receives a gratuity proportioned to his merit, or the gratification afforded to his employer. Before marriages, which are here contracted by the parents, it is not uncommon to employ on each ſide a Bhaut, who celebrates the wealth, influence, and reſpectability of the party who employs him. And after the marriage, or the birth of their firſt child, the married perſons give him a preſent of a bullock, or a piece of cloth, according to their circumſtances.

THESE particulars are offered on the authority of a native officer of the Bengal army, who at my requeſt made the neceſſary enquiries upon his own eſtate. The reſult he has obligingly communicated in a manuſcript in the Hindivi, taken upon the ſpot. A tranſlation of this manuſcript forms the ſubſtance of this account; and as this gentleman bears a very reſpectable character, I have on my part perfect confidence in the accuracy and truth of every part of his narrative. It ought, in fact, to be regarded as neither abſurd nor incredible, that in a country where every great man retains in his ſervice a domeſtic merely for the purpoſe of proclaiming his titles to the mob as he paſſes, there ſhould exiſt a race of men who ſubſiſt by flattery. Our own manners, a few centuries ago, are ſaid to have countenanced a race of bards, who frequented the houſes of chieftains, and celebrated their praiſes in as rude poetry, and by flattery

flattery as grofs as the Bhauts of the Hindoos. There are a thoufand particulars in which the European cuftoms and manners in the twelfth century feem to have refembled thofe of Hindoftan. The practice of entertaining buffoons and jefters at court, was common to both countries, and feems to announce a ftate of manners equally indelicate with that above defcribed.

In this community we have to notice five families of fhepherds who poffefs fifteen hundred fheep; they conftitute a particular clafs who fheer their fheep, and manufacture the wool. The finer blankets are fold for one rupee each; the coarfe eight anas; but the zemindar is entitled to what he ufes at an inferior price. Mutton is ate on certain occafions by almoft every caft, at leaft the rams; and the cafe is the fame with goats flefh. In this part of the country there is a price fixed by Europeans for every fheep; three for a rupee, or about tenpence each. This is lower than the real value, and muft operate as a grievance; it explains the reafon why the natives are fo averfe to fell their productions to Europeans.

From the fhepherd we pafs to the village Brahmin. As often as the Ryut has collected a particular harveft, the Brahmin is fent for, who burns ghee, and fays prayers over the collected heap; all prefent join in the ceremony; and the Brahmin receives as his part one meafure of grain in that implement which is employed in winnowing it. He is employed by

by all the farmers, and at each harveſt, he collects a contemptible tithing for a village curate; beſides this the Brahmin receives many different fees and annuities. At each marriage he claims five per cent. of the bride's whole portion; in caſes where the parents can afford no marriage dower, the bridegroom pays the Brahmin his fee, which riſes with the circumſtances of the party; but even to a poor man it coſts five rupees.

## OF THE VARIOUS GRAINS CULTIVATED IN UPPER INDIA.

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*Futtigurr, Dec.* 1797.

THE different ſpecies of grain cultivated in Hindoſtan are more numerous than in Europe, or perhaps in any other part of the world. The agricultural diviſion of the ſeaſons is into the two Great Harveſts Khereef and Rubbee. The former continues during September and October, and the latter during March and April. In the Khereef, the kinds of grain, chiefly cultivated in the upper country, taken in the order of ripening, are as follows *.

1. Bhootah;

* The Linnæan names are given on the authority of Dr Hunter, a Gentleman of great accuracy as well as learning, and a valuable member of the Aſiatic ſociety.

1. Bhootah; in the interior provinces, Mukha. This grain is in flower in July, and is reaped in Auguſt and September.

2. Congree; Panicum *Italicum*, flowers in the end of July.

3. Oord, or Maſh; Phaſeolus *max*, flowers in July and Auguſt, is reaped about the end of September.

4. Moong Phullee; Arachis *Hypogæa*, (ground nut of the Weſt Indies), flowers in September.

5. Murhua; Cynoſurus *coracanus*, Linn. This grain has obtained various names among the natives. In Myſore it is denominated Raggy; in the Carnatic Natchenny, aud Maud or Mal, in the upper provinces.

6. Bajira; Holcus *ſpicatus*, Linn. This grain called Drob in the north of Africa, is ſmall and round in figure, reckoned nutritious in a high degree, but heating, and hard of digeſtion. Its cheapneſs renders it uſeful among the poorer claſs of inhabitants; and by the Mahratta cavalry it is made into flat cakes, which the horſeman can carry under his ſaddle in ſufficient quantity to ſerve him ſeveral days. It is alſo reaped during the Khereef.

7. Jooar;

7. Jooar; Holcus *Sorghum*, Linn. The culm is very ſtrong, and grows to the height of ſeven or eight feet. The ſpike egg-ſhaped, nodding, or hanging, ſix or ſeven inches in length, nine in circumference. Of this there are ſome varieties.

8. Moong; Phaſeolus *mungo*. The ſpecific difference between this and the Oord is difficult to eſtabliſh: for agricultural purpoſes it may be ſufficient to conſider them as mere varieties.

9. Beertia; a ſpecies of Panicum uſed in food, as is the Congree.

The ſecond harveſt, Rubbeef. In this ſeaſon are grown and reaped moſt of the European grains; which are ſown at the breaking up of the rains, and gathered in ſpring.

1. Wheat; Triticum *ſativum*. The ſpecies moſt frequently ſown in upper India, has the following marks: Calyces four flowered, ventricoſe, ſmooth, imbricated: the two outer florets with long beards; the third with hardly any; the fourth and innermoſt neuter. From this character, ſays Dr. Hunter, I am doubtful whether it ſhould be referred to the ſpecies Æſtivum or Spelta, or whether it may be regarded as a new ſpecies. It is in general a pretty cloſe, thick crop; apparently ſmaller in both ſhaw and grain than our European wheats: but from its great hardneſs, and the vigorous ſun beams, it yields a better

better flour. It is chiefly in the upper provinces that wheat is cultivated: in the low marſhy grounds of Bengal it is not found to ſucceed.

2. Channah; Cicer *arietinum.*

3. Torr, or Arber; Cytiſus *cajan.* It is ſown during the rains, in mixture with the Joonr; and when that crop is removed it ſtands till reaped in the wheat-harveſt.

4. Peaſe; Muthur or Buttlee: Of this there are ſeveral varieties, which are reaped during the cold ſeaſon. It is ſurpriſing what degrees of continued froſt theſe crops endure in the provinces of Rohilcund and the Deccan, without injuring them. During the months of December, January, and February, ſeldom a night paſſes without freezing the pools; yet from the dryneſs of the ſeaſon little check is given to the crops.

5. Barley; Hordeum *tetrasticum* of Linnæus. This is the moſt abundant crop in all the upper diſtricts of India: it is made into cakes by the natives, which are cheap, and by no means unpalatable. The ſpecies is four rowed, and of that kind called big by the Engliſh, ſuppoſed an inferior kind. It is a cheaper food than wheat, and for that reaſon perhaps it is more generally uſed than any other grain except rice in the lower provinces. Barley, in many diſtricts, requires artificial watering; an operation by far

far the moſt laborious in Hindoſtan. It is performed ſometimes by the help of bullocks, but oftener by the hand, aſſiſted by a ſimple machine.

7. COTTON is the great ſtaple of ſome of theſe provinces, and that on which they principally depend for profit by exportation. It is carried on ſmall bullock waggons from the interior, either to Mirzapore and Calcutta, on the Ganges, or the Guzarat on the Perſian Gulph. This produce is in ſome diſtricts partly manufactured into printed and ſtained cloths. The root of the Morinda *citrifolia*, termed Aal, is the material of this dye, and alſo forms an article of their exportation.

8. OPIUM is a favourite article of cultivation among the natives, which European capital and ſkill has tended greatly to increaſe. In our provinces the practice is varied according to the views of the European managers appointed for its direction. Among the natives in the independent ſtates, the culture is more uniform, and not yet generally underſtood by us. In the province of Malwa, the moſt experienced natives have favoured us with the following particulars of their management.

THE poppy ſeed is ſown in December, upon ground well manured with cow dung or aſhes: after a previous preparation of ſeven ploughings, the ground is divided into little ſquare incloſures of two or three cubits; theſe incloſures are formed by a

ſlight

ſlight embankment of earth only a few inches in height: within theſe the ſeeds are ſown to the quantity of one ſeer and a half, or two ſeers per biggah, (one third of an acre). After eight or nine days the ground is watered, that is, completely overflowed to the depth of two or three fingers, by breaking down a ſmall outlet in each incloſure ſucceſſively. This operation is repeated ſeven times, at the diſtance of ten or twelve days: after each watering, when the ground is a little dried, but ſtill ſoft, it is ſtirred with a ſmall iron inſtrument, ſo as to looſen it effectually, and the weeds are carefully removed: the plants alſo are thinned away if they come up too cloſely, to the diſtance of five or ſix inches. The plants thus removed, if young, are uſed as pot herbs; but if grown up to a larger ſize, a foot and a half, they become unfit for this purpoſe from their intoxicating quality.

THE poppy flowers in Februáry, and the opium is extracted in March or April, ſooner or later, according to the time of ſowing: the white kind yields a greater quantity than the red; the quality is reckoned the ſame from both. When the flowers are fallen off, and the capſules aſſume a whitiſh colour, it is time to wound them. This is performed by drawing an inſtrument with three teeth, at the diſtance of about half a line from each other, along the capſule from top to bottom, ſo as to penetrate the ſkin. Theſe wounds are made in the afternoon and evening;

ing; and the opium is gathered next morning. They begin at day-break, and continue till one p'har of the day is paſſed. The wounds on each capſule is repeated for three ſucceſſive days. The whole capſules in a field are wounded, and the opium gathered in fifteen days. In a fruitful ſeaſon, and good ground, they obtain from ſix to nine ſeers of opium from a biggah of ground: a ſmall crop is from two to four ſeers. When the drug is cheap, it ſells for fifteen rupees per dhiree; when dear, and of a ſuperior quality, for twenty-five rupees. A dhiree contains five ſeers and a quarter; ſo that the groſs produce of a good crop is 1675 rupees per acre, equal to 200l. The groſs produce after ſome imperfect experiments in England, amounted only to 50l. per acre; but from ſuch data we are not warranted to draw any concluſion.

In the Mahratta diſtricts all the opium, even at the time of gathering, is adulterated with oil; and this mixture they do not conſider as fraudulent: the practice is allowed, and the reaſon aſſigned for it is the prevention of too great dryneſs in the drug. The people employed in gathering have each a ſmall veſſel containing a little oil of ſeſamum or lintſeed. The opium which has flowed from the wounded capſule is ſcraped off with a little iron inſtrument, previouſly dipt in oil: a little oil is taken in the palm of the hand, and the opium gathered with the iron inſtrument, is wiped on the hand, and kneaded with the oil.

oil. The whole quantity gathered, is brought home kneaded into a maſs, and thrown into a veſſel with more oil, into which the whole crop of the ſeaſon is collected.

It is thus evident that the quantity of oil in any given quantity of opium, is not determined with much accuracy; they compute that the oil amounts to one half of the pure drug, or one third of the mixed maſs. The adulterations practiſed ſecretly, and conſidered as fraudulent, are mincing the powder of the ſeed leaves of the poppy, and even aſhes. The mixture of oil renders this opium of very inferior quality to that of the Company's provinces. It is particularly unfit for medicinal purpoſes, and for making a tranſparent tincture. It is exported to Guzarat and other parts: the merchants advancing the money to the cultivator, at leaſt in part, while the crop is on the ground.

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*Chándernagore*, 1799.

Of flax and hemp, with all their varieties, and the different ſubſtitutes for theſe uſeful articles, the Hindoo agriculturiſts poſſeſs greater abundance than any other people. The advantages of which theſe might be productive to a commercial nation have not been overlooked; yet it is probable that neceſſity only will prompt us to avail ourſelves of them to that degree to which they may eaſily be carried.

The moſt common ſubſtitute for hemp in Bengal, is the *Jute* or *Paut*, Crotularia *juncea*, Linn. It grows abundantly in many parts of this province; and is much uſed for ſails, ropes, fiſhing nets, and other naval purpoſes. An act of Parliament has been paſſed permitting this article to be imported free of duty. It has in conſequence been imported, though

though in no great quantity. Since, however, rags, and the materials of the paper manufacturers have riſen ſo much in price, it has been recommended as a beneficial article to the owners of rice and country ſhips, to fill up their cargoes with as tonnage. Such goods as require to be packed in gunny bags have been found moſt convenient for the importation of this article, without riſking much capital. The price of Sun, which, in its manufactured ſtate, this commodity is called, is from ſeven to eight ſhillings per cwt. in Bengal, and it has ſold in England at thirty-five ſhillings. The refuſe of this plant furniſhes to the Hindoos the material for making paper; and it is probably from this circumſtance, that Mr Sewell, bookſeller in London, firſt conceived the idea of rendering it ſubſervient to our manufacturers during the great ſcarcity of materials. Many have already profited conſiderably by the information conveyed by this judicious and accurate obſerver; and it is highly probable that the uſeful hint which he has conveyed in the European Magazine, will be more beneficial to his country than ſome other more ſplendid diſcoveries.

The following varieties of this plant have been cultivated in the Botanic Gardens at Calcutta, and experiments deciſive of their utility, have been made by Dr. Roxburgh, a gentleman to whom botany is more indebted than to any other man of the preſent times.

1. Bhungee

1. Bhungee Paut. Corchorus *olitorius*, Linn.

2. Ghee Naltha Paut. Corchorus *capſularis*, Linn.

Of the cultivation of theſe plants, and his attempts to improve the quality of their flax, Dr. Roxburgh's letter to the Governor in Council will convey the beſt idea.

"Immediately on my arrival in Bengal, among other things I turned my attention towards ſuch plants as yielded the natives materials for making twine, &c. and found they poſſeſſed not only Crotolaria *juncea*, and Hibiſcus *cornabinus*, (an account and drawings of theſe I have already tranſmitted to the Hon. Court of Directors), but that they alſo cultivated for the ſame purpoſes two ſpecies of Corchorus, the olitorius, and capſularis, with varieties of each ſpecies of Oſchynomene *, which the late Dr. Koning firſt deſcribed. Drawings and deſcriptions of theſe plants, with the method of cultivation, and preparation of their fibres, I have now the honour of tranſmitting, together with ſome cleaned ſamples, which I beg may be ſent to the Hon. Court of Directors."

"This ſubſtance (Jute), might probably be rendered much finer, even fit for cambric and lawn, by being

* Dooncha of the Bengaleſe.

being ſown thicker than uſual, and cutting it at an earlier period; for it is well known that cutting flax green, prevents that harſhneſs which it acquires by ſtanding till full ripe. I have in view ſome experiments to determine this point, which I think is a very eſſential one. Beſides, the Hindoos, ſo far as I can learn, pay no attention to the cleanneſs, or quality of the water they ſteep the plants in, which is no doubt a material point, and requires to be attended to. Soft clean water, well expoſed to the ſun's beams, and never uſed for the ſame purpoſe a ſecond time, is what I would recommend. Jute ſo prepared, will no doubt be of much more beautiful colour, than when leſs pure water is uſed. Putrid foul water will moſt likely haſten this operation, and it is therefore employed by the Hindoo farmers, who are more intent on diſpatch, than on the colour of the ſubſtance, as it is only employed by them for coarſe purpoſes, where colour and appearances are totally immaterial.

"With a view to determine whether the quality of the Jute might be rendered finer by the above means, I cauſed two parcels to be ſown about the uſual ſeed time, viz. one of Bhungee Paut, and the other Ghee Naltha Paut: The ſeed of the firſt proved bad; a circumſtance I did not learn, till it was too late to ſow a ſecond parcel; conſequently I am unable to ſay any thing farther concerning this ſpecies.

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"THE capſularis grew well; and as it was ſown thick, run up ſlender to a conſiderable height. It was cut at an early period, ſteeped in perfectly clean water, bleached, beat, and dreſſed with the ſcutch and coarſe heckle. In the package which accompanies this, the dreſſed fibres will be found in one bundle, the dreſſing in another, and ſome of the undreſſed in a third. From theſe you will be able, I hope, to judge whether this ſubſtance is to be improved by the means practiſed in Europe, to procure fine flax for cambric, and fine lawn."

BESIDES theſe ſubſtitutes, the true hemp, (Bang of the natives), is found in many places of Bengal. It is however but little uſed, except for the oil, which is obtained from the ſeeds; and for medicine; or, laſtly, for an intoxicating ingredient mixed with tobacco for the Hookah. Intoxication by this means, is perhaps the greateſt and moſt univerſal evil ſuffered by the Hindoos; ſince its ſmall price puts this treacherous luxury within the reach of all.

THE common flax of Europe, (Tiſſee of the Bengaleſe), is cultivated in all the upper provinces as well as Bengal. This, however, is for the oil ſolely; for the natives are unacquainted with the uſe of Tiſſee as a flax. The cultivation of it for the fibre might no doubt be turned to great account, ſince under the preſent management this moſt uſeful part is entirely thrown away. On the vaſt and fertile plains of Bengal, proved by the experience of ages to be adapted to the growth

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of this plant, it is difficult to aſſign any limits to the quantity of flax that might be raiſed. Whilſt England pays annually to Germany for eight or nine hundred tons of linen yarn, this plant, and theſe rich territories offer a wide field of intereſting experiment to the government of Bengal.

Coir, (the inner bark of the Coco nut), uſed as the running rigging of ſhips, is preferred to hemp, by all who have uſed it. Though hard to handle at firſt, yet, on a little uſe, it becomes eaſy, and has many good qualities. Employed in cables it is in general uſe in Aſia; and being at once light and elaſtic, it poſſeſſes many advantages. It has been ſtretched from ſix to nine inches without breaking; a degree of elaſticity which muſt enable a ſhip to ride eaſy; where with a common cable, it would be dangerous or impracticable. None of the Coir cordage receives tar; an advantage in point of ſaving, if it continues freſh and durable, as it is ſaid to do, when carefully wetted with ſalt water.

Our Oriental poſſeſſions have already contributed largely to the reſources of the empire in the neceſſary article of ſhip-timber; ſeveral of the moſt valuable ſhips that ever entered the Thames having been built there: It is probable that the period is not far diſtant when they ſhall prove equally ſerviceable in the articles of paper, ſails, and cordage. In obtaining from Hindoſtan all the benefits which are compatible with its own intereſt to beſtow, we have, it muſt be allowed

allowed many difficulties to encounter: The chief of theſe, perhaps, is want of enterpriſe in the natives themſelves; they poſſeſs, (what philoſophers ſuppoſed only to belong to inanimate matter) a powerful *vis inertiæ* which muſt continually be counteracted by the application of an adaquate ſtimulus on one part. To invigorate and properly apply the induſtry of ſo many millions of people is a great and important truſt which has devolved upon the Britiſh. It is comfortable to obſerve that this is a truſt, our countrymen who adventure in theſe provinces are, in general, well qualified to fulfill. Their ardour in purſuit of fortune is often a happy corrective of the indolence of the Aſiatics. There are in Calcutta ſome mercantile houſes whoſe enterpriſe and capital put in motion a greater number of hands than any equal number of individuals in any quarter of the world. The number of ſailors, ſhip-builders, growers of indigo and cotton, and manufacturers of every deſcription, who are ſupplied with labour and ſubſiſtence by the ſingle houſe of Mr Fairlie, is perhaps not equalled by any individual in Europe. Yet this Gentleman, after twenty years laborious exertion in a debilitating climate, continues to proſecute every new adventure with the ſame activity as he commenced his career: "*Nil actum reputans donec aliquid ſupereſſet agendum.*"

## OF THE COCHINEAL.

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*Benares,* 1798.

THE indigo manufacture which has given a conſiderable ſpur to the induſtry of the natives of India, was ſoon ſucceeded by an attempt highly commendable, to eſtabliſh that of cochineal. Dr. Nicolas Fontana, a gentleman of great literary knowledge, has detailed the advantages to be derived from this culture, in a very ſatisfactory manner.

"THE introduction of cochineal into Bengal, which our neighbours had endeavoured to naturalize in their Weſt India poſſeſſions, deſerves particularly to be marked as being likely, under proper management, to become not only a new æra in the progreſſive reſources of the Company, but an acceſſion of opulence to the Britiſh empire: an æra the more remarkable, as, notwithſtanding the attempts of Go-

vernment, the deſign was not accompliſhed but through accident, the great parent of diſcovery, which, with never ceaſing influence, operates in ſo many ways for the good of mankind.

"AFTER a large plantation of the various ſpecies of *Opuntia* had been reared at Madraſs, waiting only the arrival of the inſect to make it ſerviceable, which a long correſpondence of thirteen years could not obtain, Dr Anderſon's ſolicitations about it had almoſt been forgotten; yet though his laborious induſtry and zeal for his country's intereſt, had no other reward, the introduction of the cochineal inſect into India is entirely owing to his publications on the ſubject, which fortunately fell into the hands of Captain Nelſon, who was then ſtationed at Madraſs with the 52d regiment. On the Captain's return to India in 1795, the fleet in which he ſailed repaired for refreſhment to the port of Rio de Janeiro. In his perambulations a little way out of this town, he was attended as uſually by the centinel, when he ſaw a plantation of Opuntia with the inſect upon it. This circumſtance immediately brought to his recollection the ardent wiſh for the importation of the inſect expreſſed in the letters he had read at Madraſs; and he conceived the hope of being able to gratify Dr. Anderſon's deſire, by carrying ſome to India with him.

"A day or two previous to his embarkation he took another walk to the place where he had ſeen the

the Opuntia or Nopal. He made bold to aſk the cultivators for ſome of the plant, being curious, he ſaid, in matters of natural hiſtory. Having collected ſeveral other plants he wiſhed to have this alſo. The good people being the leſs ſuſpicious, as he was in his regimentals, granted his requeſt. They gave him ſeveral plants with inſects upon them, which he carefully carried aboard. Many of theſe, during the paſſage to Bengal, which was remarkably long and tedious for ſuch delicate paſſengers, died. A few inſects only remained alive on the laſt plant, ſeveral of the leaves having withered.

"Capt. Nelſon on his arrival in Calcutta, ſent the ſurvivors to the Botanic Garden, where they were diſtributed on the different ſpecies of the Opuntia. This well nigh fruſtrated the whole labour. On the China and Manilla ſpecies, they were found to die faſt. It fortunately occurred to make the trial on the indigenous Opuntia of Bengal, which is alſo abundant in many parts of India. On this the inſects thrived amazingly; in ſo much that from theſe few, in the courſe of four or five months a quantity had been collected ſufficient for diſtribution among all who wiſhed to try the rearing of them; and ſeveral plants upon which the inſects were feeding, were ſent to Madraſs.

"The novelty and importance of the object promiſing ſo ſpeedy and plentiful a harveſt of fortune, engaged a multitude of individuals to undertake the buſineſs;

buſineſs; and this, no doubt, the more readily, as the cultivation of this rich field of wealth required but very little capital. Many golden dreams were enjoyed by the new planters. All who had a mind were provided with inſects; and undertook plantations of Opuntia.

"THE anxiety and impatience natural to all, who indulging in ardent expectations, undertake new enterpriſes, induced ſome of the planters of the Nopal to put the inſect upon it, when the plant had juſt emerged from the ground. Others, through inattention, kept their inſects in places too near to where the Opuntia was growing young, which in that tender and premature ſtate was devoured by theſe creatures, when hard preſſed by hunger. The unſkilful mode of drying was likewiſe adopted: and ſome of thoſe perſons whoſe opinions lead the multitude, declared in the moſt decided and poſitive manner, that the cochineal would never anſwer, as it would not be found worth the trouble and expence attending the cultivation of it. All theſe conſiderations damped in a great meaſure the ardor of the enterpriſe. Many abandoned the purſuit, and left the inſects to provide for themſelves, after the plants deſtined for their uſe were deſtroyed, wherever they could find nouriſhment. They were ſeen flying about indiſcriminately on various other plants, and thus periſhing; while others rooted out the plantations, and employed the ground for other purpoſes.

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"BESIDES the diſcouraging circumſtances already mentioned, it was urged that the ſpecies imported into India, was only the Grana Silveſtris, and that the firſt ſpecimens ſent home had been of no value. They had grown lumpy and muſty for want of being properly dried, or thoroughly diveſted of the cottony ſubſtance with which the inſect is covered. But ſuppoſing, it was added, that a proper mode of drying and preparing it could be found out, and the cultivation of it brought to the greateſt perfection, it would ſoon overſtock the market, as there is a certain quantity only, and that not very great, which is required for Europe. This would ſoon be ſupplied, and loſs inſtead of gain would accrue to the planters. This exceſs, however, it was farther urged, was to be preſumed only in the caſe of the country being able to ſupply plants ſufficient for the food of the inſect, which was very doubtful on account of its quick reproduction, as it ſends forth a new generation every forty days.

"THESE with other objections of leſs force, may eaſily be refuted by any impartial obſerver acquainted with the nature of the climate and ſoil of India, even without any kind of knowledge of agriculture. In ſuch a vaſt extent of territory as that of the Eaſt India Company, and lying under ſuch a variety of climates, it is not ſurely impoſſible, or very difficult to find a climate and ſoil fitted for the naturalization and rearing the cochineal inſect; and where the plants will grow to proper ſize for affording it food;

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in the ſame manner as in the diſtricts of Mexico, where the people who take moſt pains, have them growing to ſuch a height as requires ladders to gather the inſect. Such a ſtate of the plant would check the too rapid reproduction of the inſect, and at the ſame time improve its quality; for it is a fact that the Sylveſter Cochineal, when bred upon a full grown Nopal, loſes part of its tenacity, and grows to double the ſize of that gathered on gunny plants, and leſs covered with the cottony ſubſtance.

The cultivation of cochineal, would in all probability be greatly favoured by the vicinity of a hilly country; ſuch as the Boglipore, Rajahmahl, and Purneah. It can be aſcertained by good authority, that there are already in the Chittagong diſtrict, plantations of large Opuntias, which have been growing for two years paſt. Whenever the inſect ſhall be placed on theſe plants, we ſhall ſee cochineal of a very good quality. The nature and habits of the natives, ſeem entirely calculated for the employment of gathering the inſect; work that may be done by old men, women, or boys.

"As to the drying the inſects, there is no country where the ſun has ſuch influence as in Bengal. The method of drying in the ſun, after ſcalding the inſect in hot water, is that practiſed in Mexico, and in Brazil; the inſects collected in wooden bowls are thereby ſpread from them on a hot diſh of earthen ware, and placed alive on a charcoal fire; where they are ſlowly roaſted,

ed, till the downy covering diſappear, and the aqueous juices of the animal are wholly evaporated. During this operation, the inſects are conſtantly ſteered about with a tin ladle, and ſometimes water is ſprinkled upon them, to prevent abſolute torrifaction; which would deſtroy the colour; but a little practice will teach them to remove them from the fire, though ſurely its barbarity ought to prevent its adoption.

"By an eſtimate made on a large ſcale, of the neceſſary expence that would attend the cultivation of one hundred biggahs of Opuntia, it appeared that after making every poſſible allowance for ground rent, Ryuts gathering, and an European overſeer, and intereſt on diſburſement at twelve per cent. the quantity produced of grana ſylveſtris during nine months of the year, reckoning it at four ſicca rupees per ſeer of thirty-two ounces, would more than treble the capital employed. But if this calculation be juſt in the vicinity of Calcutta, and there is no reaſon to ſuppoſe it otherwiſe, where labour and ground rent is dear; how much leſs would the whole expence of cultivation and preparation be, if transferred to a greater diſtance, and to the other provinces!

"When the inſect has been well dried, it ſhould be packed immediately, as it might otherwiſe be affected by the damp air of Bengal. In this buſineſs the method uſed in Mexico ſhould be followed; which is to put it firſt into a linen bag, covered with

a compact net; and then over the whole an ox's hyde ſewed ſo cloſely as to render it impervious to water.

" For ſome of the cochineal which I wanted for the purpoſe of making experiments, collected at Entally, two miles from Calcutta, I paid in 1796, ſixteen rupees per ſeer: for the ſame quantity raiſed by another planter, the following year, eight rupees; and in 1797, I might have bought a great quantity, part of which came one hundred miles from Calcutta, at five rupees per ſeer.

" The improveability of the grana ſylveſtria by attention, will be aſcertained more clearly by the following fact, than by a thouſand arguments. Some merchants, at my recommendation, bought about two hundred pounds of cochineal made at Raſſapuglah, five miles from Calcutta, at five rupees per ſeer. The ſame houſe paid for ſeven mauns, or 280 ſeers, to Mr Stephens at Keerpay, ſeven rupees per ſeer, in 1797, and I can ſay that it was the beſt of the ſort that had yet been ſeen in town, both for its ſize, cleaning, and drying.

" Let us now ſuppoſe for a moment, ſuch cochineal as that made at Keerpay, to be the beſt that can ever be obtained in Bengal, and that the above may be within a rupee, more or leſs, the average price. The grana fina, that is brought to Bengal by way of Manilla, ſells, when abundant, at ſix-

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teen rupees per ſeer, but oftener at nineteen and twenty. The Bengal Sylveſtris contains only from 9-16 to 10-16 parts of the colouring matter contained in the other; but ſay only one half, ſo that the manufacturer will be obliged to uſe two ſeers inſtead of one, the quality of the colour to be the ſame, even at this rate, the ſilk manufactories at Bengal might be ſupplied with it, with a yearly ſaving. After ſupplying this market, if the quantity be increaſed, there will be a demand for it in the China, and Engliſh markets, though only of the Sylveſter kind. Suppoſing it for ever to remain ſuch, by leaving it to the indolent natives only, even this would be a great acquiſition, conſidering the various ways in which it can be employed by the dyers. Beſides if the prices were immediately to fall, ſo as not to indemnify the preſent freight and inſurance to the private adventurer, how eaſy would it be to reduce the inſect to a much ſmaller bulk by making a lake, and producing carmine no leſs valuable than the grana fina.

"The overſtocking of the market, however, with a drug ſo important, and of ſuch extenſive uſe, is not a thing very likely ſoon to happen. The manufacturer wherever he ſhould find it at a price would uſe it generally, and ſubſtitute it in the room of other materials for reds; ſuch as madder, redwood, and others uſed for woollens, and ſilks; beſides the great varieties of ſhades from ſcarlet and crimſon, down to all thoſe various tints, to be obtained by

modifications of reagents from cochineal, with a brilliancy and ſtability that would ſoon repay the ſmall additional expence that might be incurred by this ſubſtitution.

"IT is a thing greatly to be wiſhed by every citizen and patriot, that the Bengal cochineal may ſoon be brought to ſuch a degree of perfection, and produced in ſuch plenty, as may admit of a reduction of its price ſufficient to induce the calicoe printers in Europe to uſe it more commonly than hitherto, in the dying of cotton; which open a much wider field for its conſumption. As to the ſhyneſs of cotton to the admiſſion of this animal colour, it is not an obſtacle that ought by any means to be conſidered as inſurmountable, in the preſent ſtate of chemiſtry, advancing ſo rapidly to farther improvements, and particularly applying, with vaſt ſucceſs, many of its operations to the art of dying. The few unſucceſsful attempts made by manufacturers, and chemiſts, to fix this colour on cotton, have been defeated more by the dearneſs of the drug, than by any impracticability of the deſign. This exhauſted at once the purſe and the patience, both of the artiſt and chemiſt; and precluded that continuation, repetition, and diverſification of experiment which is neceſſary to the completion of new inventions.

"IT was upon cotton that the Spaniards firſt

ſaw

BOMBAY BRANCH OF THE ROYAL ASIATIC

ſaw the cochineal uſed in Mexico; but for want of preparation, it produced but a dull crimſon. When ſome of the dried Bengal inſect was ſhewed to the Vakeel of the Rajah of Napal, reſiding as miniſter to our Government at Calcutta, he ſoon knew it, and declared, that it was always uſed in dying his country robes and turbans. The opportunity ariſing from the management of a chintz manufactory, induced me to make ſome trials of cochineal in cotton cloth and thread. By theſe it was aſcertained, that the quantity of colouring matter, contained in the Bengal cochineal of 1796, compared with the grana fina, was from nine or eleven, to ſixteen. I then repeated as far as the chemical reagents, to be obtained in India, would permit, various experiments of the kind mentioned by Dr. Barcroft, in his firſt volume of the philoſophy of faſt colours, and nearly with the ſame ſucceſs in variety of ſhades and degrees of permanency. From theſe experiments there reſulted two conſiderable benefits to that manufactory: The firſt was, that I was induced to make an addition of a certain quantity of powdered cochineal to the morinda root, for the fine cloths and muſlins that were to undergo the boiling proceſs in the vat: The ſecond, I was led to mix with the baſis for printing red, (alum), a decoction of cochineal, inſtead of the Turmeric, or red wood, formerly uſed by printers in tracing their deſigns. This laſt ſubſtitute was only boiled in

ſimple

ſimple morinda, and the other with the addition of cochineal. By this proceſs deep and brilliant reds were obtained, ſuch as had not hitherto been ſeen in Bengal.

The cultivation, therefore, of the cochineal inſect, is an object worthy of all the countenance and care of Government. The attempts towards its naturalization ought not by any means to be abandoned, but continued with all perſevering induſtry, and unwearied attention, to every circumſtance that may promote ſo important a branch of commerce. For this article we ſend annually immenſe ſums to the Spaniards. Not only might this expence be ſaved to Britain; but, in due time, the reſt of the world might be ſupplied from the Bengal produce of this valuable commodity. It is in the recollection of moſt people converſant with India affairs, how the firſt ſpecimens of indigo ſent home from Bengal were depreciated and rejected: Hence the cultivation of it was obſtructed for ſome years. But when it began to be attended to in 1780, and 1782, by people who were acquainted with the beſt modes of manufacturing it, it was improved with ſuch rapidity, that in 1790 ſome of the Bengal indigo was judged to be equal to the Guatimala, and bore the ſame price. The quantity ſent home in the year 1795, and 1796, was far beyond what had ever been imported into the port of London from all the world, and more than is required for the

the annual conſumption of Europe. The uſe of indigo in the dye-houſe is very circumſcribed, and confined chiefly to the colours of blue and green. It gives alſo a few finer blacks, with lilac grounds; but it cannot, like cochineal, be applied to the various principal colours, as crimſon, ſcarlet, purple, and to all the intermediate ſhades.

OF

## OF THE LABOUR ABSTRACTED BY THE DIAMOND MINES.

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*Mirzapore*, 1798.

A CONSIDERABLE portion of the rural labour of Hindoſtan, is abſtracted from agriculture, its proper object, and employed in the diamond mines. Of the four principal mines, that at Roalconda, five days journey from Golconda, is the moſt antient; for Tavernier ſays that it was diſcovered two hundred years before his time. Around the place where the diamonds are found in this mine, the ground is ſandy, and full of rocks, in which there are veins of half a finger, to a whole finger in width. The miners make uſe of irons with hooks at the end, with which they pick out the earth or ſand, from theſe veins, which they put into tubs, and among that earth they find the diamonds.

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THERE are ſeveral diamond cutters at this mine, but none of them have above one mill, which is of ſteel. Tavernier, who is a judge of this ſubject, aſſerts that the natives cannot give that lively poliſh to the ſtones which the Europeans do, yet they can cut ſome which our lapidaries will not undertake.

THERE are two kinds of merchants employed in this traffic; the one takes a portion of the ground, and employs miners to dig, paying a duty to the King of four pagodas per day, for every hundred men employed in the works; the other claſs of merchants are merely purchaſers of the ſtones from the firſt, and they alſo pay a duty to the king of two per cent. for all that they buy.

OF this latter claſs was M. Tavernier, who has given by far the moſt detailed and authentic account of this trade that has yet reached Europe. He had made many different journeys to the different mines of India, and in this traffic accumulated an immenſe fortune.

"IT is very pleaſing, he obſerves, to ſee the young children of the merchants, and other people of the country, who ſeat themſelves under a tree in a ſquare of the town, and though not older than fifteen or ſixteen years, and many ſtill younger, they make bargains with perfect ſkill and exactneſs. Each has his diamond weights, and a bag hanging by one ſide, with a purſe at the other; thus he ſits expecting his cuſtomers,

cuſtomers, who come to ſell. When any perſon brings a ſtone, it is put into the hands of the eldeſt of theſe boys, who ſits as a kind of chief, and after having examined it, paſſes it to the reſt one after another, till all have ſeen it, when it is again returned to him. Meanwhile not a word is ſpoken; till he demand the price, with a view to purchaſe it, if poſſible; and ſhould he buy it too dear, it is on his own account. In the evening the children compute what they have laid out; then examine their ſtones, and claſs them according to their water, their weight and cleanneſs: they then carry them to the great merchants, who have generally large parcels to match. The profit is then divided among the children equally; only the chief among them has one fourth per cent. more than the reſt."

THE bargains made by the great merchants, both Mahommedans and Hindoos, are tranſacted with peculiar ſecrecy and dexterity. The buyer and ſeller ſit oppoſite to each other, and without ſpeaking a word, the one of the two opens his girdle, the ſeller takes hold of the purchaſer's hand, and with it he covers it as well as his own, and according to different ſigns made by the touch, perfectly underſtood by the parties, the bargain is concluded. Thus in the ſame place, a parcel may be ſold ſeveral times, without any one preſent knowing that it hath been ſold at all, or for how much.

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As the value of theſe mines depends much upon the ſecurity and protection given to the purchaſers who reſort to them; the native governments have afforded this with much ſolicitude. A particular perſon is appointed to weigh all the diamonds, to preclude all impoſition in this particular; ſervants are appointed to every conſiderable merchant during his ſtay, to guard both his money and effects, and not unfrequently an eſcort is allowed him till he reach the frontiers of the kingdom.

The lot of the poor natives, who work the mines, though well ſkilled in their buſineſs, is invariably a hard one. Their wages never exceed three pagodas in the year; a ſubſiſtence ſo ſcanty almoſt compels them to diſhoneſty. Accordingly they make little ſcruple, as often as with ſafety they can, to hide a ſtone for their own profit. As they are perfectly naked, except the ſmall rag around their middle, this can hardly be done but by ſwallowing the ſtones; and this being detected they have been known to ſecrete them in the corner of the eye. To prevent thefts, twelve or fifteen out of fifty are bound to be ſecurity for the honeſty of the reſt, to the great merchant who employs them.

About ſeven days journey eaſt from Golconda, lies the mine of Colour, or Gani, as it is called by the Hindoos. This mine was diſcovered about an hundred years later than that of Roalconda, by a peaſant while he was preparing ground to ſow millet,

who found at the foot of a high mountain a glittering ſtone, as he thought, but on preſenting it at Golconda to a diamond merchant, he was informed of its quality and value.

THE report of this trader in diamonds, who had not before ſeen one of ſo great weight, made much noiſe in the country, and engaged the monied men in the vicinity to ſearch the ground, where they found, and ſtill find many of greater ſize than at any other mine. Here are produced a number of ſtones from ten to forty carats, and among them ſome larger, particularly that preſented to Aurengzebe, weighing nine hundred carats. In this mine the earth is dug to a conſiderable depth, carried to a ſpot prepared for the purpoſe, and there waſhed, and winnowed. The men, women, and children employed in theſe labours, when the place was firſt viſited by Tavernier, amounted to upwards of ſixty thouſand; and many ſuperſtitious ceremonies were employed to engage their diligence and fidelity to their ſuperiors.

THE third mine is that of Sumbulpour, lying thirty coſs ſouth of Rhotas, on the confines of Bengal. The name is the ſame with that of a large town on the river Gouel, in the ſands of which the diamonds are found. After the great rains are over, they wait for two months till the water becomes clear, and the river has ſubſided ſo low as in ſome places to leave the ſand dry, in other places covering it only a few inches. This happens about the end of

of January, when workers flock to it from Sumbulpour, and the neighbouring towns, to the amount of eight thouſand perſons, men, women, and children.

THEY ſearch the river from the town of Sumbulpour, up to its very ſources in the mountains, through a tract of an hundred miles. Thoſe who are ſkilled in this buſineſs know from the appearance of the ſand whether it contains any diamonds; when there is reaſon to believe that there are any, they encloſe the place with ſtakes and faggots, and draw out the ſand for two feet deep. This ſand they work, ſift, and winnow, as at the other mines. "From this river, ſays Tavernier, come all thoſe fair Points called Natural Points, but a large ſtone is ſeldom found here."

THE fourth diamond mine was in the Carnatic; but was ordered to be ſhut up by Mirgi Mola, the famous General of Aurengzebe, on account, as it is ſaid, of the yellowneſs of the diamonds, and the foulneſs of the ſtones.

THE hardneſs, luſtre, and beauty of the diamond, have conferred on it a very high value as an ornament among all nations; but no where has it been prized more than in the Mogul territories. Rich preſents of theſe ſtones to the Sovereign, have always paved the way to rank and preferment. Hence the value of jewels and precious ſtones accumulated by the Emperors has been immenſe. In the time of

of Tavernier, one ſtone in the poſſeſſion of the Great Mogul, weighed 279 9-16 carats, and was valued by him at 11,723,278 livres, or nearly half a million ſterling. During the reign of Acber, which was before the period when the empire reached its ſummit, either of wealth or ſplendour, the vaſt treaſures of the monarch were preſerved in twelve diſtinct offices, three of which were occupied by the jewels and plate only. To each treaſury a Tepukchy and Darogha were appointed, who claſſed the jewels in a regular manner, according to their kind and value, and they were always ready to render an exact account daily or monthly of their application or expenditure. Concerning the different regulations of the mint and jewel office, the author of the Ayeen Acbery is more full and luminous, than upon any other department of the internal economy of that great empire.

The Moguls were no leſs curious in other gems than in the diamond: Emeralds, topazes, ſaphires, and pearls, always occupied a conſiderable part of the jewel office; and their value was greater than that of the diamond. Conſidering the ſmall progreſs that chemiſtry had then made in any part of the world, their knowledge of gems and of the precious metals may be regarded as both accurate and extenſive. The methods laid down for refining gold and ſilver, by Abul Fazel, rather reſemble the accuracy of a profeſſional man, than the ideas of a nobleman treating generally of the ſtate of the treaſury. No leſs

than

than twelve different degrees of fineneſs of gold, called barrah banny, are diſtinctly noted in his book; and the method of aſcertaining each degree in any given ſpecimen, is accurately laid down.

THE practical habit of aſcertaining the goodneſs of coins, or the fineneſs of jewels, is an attainment in which Europeans are at preſent far outdone by the natives. Their ſkill in this matter is ſo decidedly ſuperior, that every European whoſe tranſactions are conſiderable, retains a native writer, or Bannian, who receives payments for him, and who is anſwerable for the ſufficiency of the money of which he accepts. In moſt of the great towns of Hindoſtan, gems and precious ſtones are procurable as a mercantile commodity; but an European without profeſſional knowledge, and much experience in this traffic, could not ſafely enter into competition with the native merchants.

ANOTHER cauſe of the abſtraction of uſeful hands from agriculture, is the pearl fiſhery. The natives employed in this trade are very numerous, while the drudgery they ſuffer is far more unhealthy and perilous than that of the diamond mines.

THE ſhell-fiſh which produces this jewel, is the Mytilus margaritiferus, which is found adhering to the coral banks along the ſhores of Tinivelly. It is fiſhed by the natives, who aſſemble in ſmall boats from different quarters, at two ſeaſons of the year; the

the firſt continues during March and April; the ſecond during Auguſt and September. After each fiſhing a numerous fair is held for the ſale of the produce. Seven different villages ſkirting the ſea, of which Tutocorin is the chief, have long been famous for a numerous population ſubſiſting by this traffic; but if we may judge from their toils and their dangers, their condition cannot be envied.

THE divers ſink themſelves to the bottom generally at the depth of twelve fathoms, by means of a ſtone faſtened to their feet, and from habit can remain under water till they fill their bag with ſhells; this effected, by a twitch of the rope they make a ſignal for being drawn up. The ſpace of eight or ten minutes has ſcarcely elapſed when theſe miſerable divers again plunge into the ſea, to repeat the ſame taſk, which continues during the whole fiſhing ſeaſon. This is the Κολύμβησις του πινικα of Arrian, which from his time to the preſent day has conſtituted the drudgery of an unhappy race, who are thus expoſed not merely to the danger of cold and ſuffocation, but to the voracity of the ſhark, who devours many of their numbers, in ſpite of the *Abrajamins*, or magicians, whom they ſuperſtitiouſly employ to charm them.

THE fiſh when collected, are left in vaſt heaps to putrify upon the ſhore; and thus fever, dyſentery, and a new ſeries of calamity is generated among the adventurers; who, after all this riſk and toil, pocket

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but ſmall gains from a traffic, the ſucceſs of which is very precarious. The pearls in general found are ſmall, called ſeed pearls, and ſold by the ounce: the larger pearls which ſometimes conſtitute a prize in this hazardous lottery, are of immenſe value, and have continued in high eſtimation ſince the earlieſt times. A ſingle one preſented by Julius Cæſar to Servilia, the mother of Brutus, has been eſtimated at above forty-eight thouſand pounds; others of ſtill higher value are figured by Tavernier, particularly that great pearl which hung from the neck of the artificial peacock, which ſurmounted the diamond throne of Aurengzebe.

DESCRIPTION

## DESCRIPTION OF THE FORT, AND OF THE ADJACENT COUNTRY.

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*Allahabad, July* 9, 1798.

THE cultivation of the land goes forward here with a greater degree of ſucceſs, than, from previous information reſpecting the province, I had reaſon to expect. During a ſhort ride in the morning, you may obſerve in this ſeaſon nearly an hundred ploughs at work: theſe are however, if poſſible, of a more awkward, and ineffıcient ſtructure than thoſe I have already deſcribed: the whole plough and harneſs is daily carried to the field by the ploughman, who is ſometimes a ſlender boy.

THE ſetting in of the rain, is every where the commencement of the ploughing ſeaſon; during the dry weather, the ſoil becomes too hard to be penetrable by an implement ſo paultry as an Hindoſtanee plough.

plough. The ſugar plantations, of which there are a few here, are an exception to this. Theſe are watered, and conſequently can be dreſſed earlier. At preſent they are in great forwardneſs, overtopping, by the height of a yard, the ſmall fences by which they are incloſed. Wheat, bajerrow, and Indian corn, are other crops of this ſeaſon pretty well advanced, having already received one weeding.

Some manure is here laid upon the ground, not cows dung; that is too precious; but any kind of filth or rubbiſh which can be collected in a farmyard. This is carried out in baikets, borne not on the back as is done by our Highland damſels, but on the head. Among ſuch barbarous uſages, it is not worth while to make compariſons; yet in the quantity carried, the Highlanders have a decided ſuperiority, over a race where feebleneſs and want of energy, as well as ſtrength, is conſpicuous in every thing.

A perſon is hurt to record ſuch proceedings; they derive importance however from the conſideration, that ſuch ſervile drudgery conſtitutes the lot of, perhaps, the far greater part of the human race. Could you imagine it, even in theſe humble toils, and in this obſcure deſtiny, the peaſant is inſecure. When he goes abroad to the market, or to reſume his labour in the field, he arms himſelf according to his circumſtances, with a tulwar, a ſpear, or a bludgeon, and truſts more for protection againſt violence

to the ſtrength of his individual arm, than the general police of the country.

AMONG the early Romans, we are told, that every ſtranger was an enemy, and that by one word they expreſſed both. Here a man's enemy is perhaps his neareſt neighbour: when, therefore, he leaves his houſe, he prepares himſelf for what frequently happens, an encounter with thieves and robbers *.

THE inhabitants of Oude, in their political aſſociation, if a ſtate of anarchy can merit ſuch a name, are in that condition which was decreed as a curſe upon the deſcendants of Eſau; "their hand is againſt every man, and every man's hand is againſt them." They have actually before their eyes, what the celebrated demagogue only had in beatific viſion; a view of ſociety reduced to its "firſt principles." Each individual here travels either with the proſpect of defending himſelf againſt robbers, or of aſſuming himſelf that perilous vocation. Hence every man who has been abſent for any conſiderable time, has a ſacrifice offered to the gods for his ſafety, if haply he return ſafe to his family †.

THUS

* "Why are ye come out againſt me with ſwords and ſtaves, as againſt a thief and a robber?" is a queſtion you may here put to almoſt every man you meet; for by every one you are held in ſuſpicion.

† Vide Seir Mutagherin, by Golam Hoſſein Khan.

THUS within the ſhort period of a man's life, fell ſuddenly to pieces the great empire of Hindoſtan, almoſt without external violence; like an animal body in the lateſt ſtage of putrifaction, from the extent and maturity of corruption that pervaded the whole of its members. Every province, almoſt every diſtrict, diſplayed a faithleſs ſervant of the empire, or ſome adventurous chief uſurping abſolute power; and practiſing all the extravagancies of an unprincipled mind on its ſudden elevation to the plenitude of deſpotiſm. While you, therefore, inveigh in ſuch impreſſive terms againſt European rapacity in the Eaſt, we, who are on the ſpot, content ourſelves with the humble perſuaſion, that for a country in ſuch a ſtate to be poſſeſſed by a Britiſh army is a kind diſpenſation of the Ruler of nations.

IT is felt and acknowledged as ſuch by the natives themſelves. The protection it affords gives them an opportunity of laying aſide their ſwords and ſpears; or, if you pleaſe, of literally "turning them into ploughſhares." With regard to myſelf, that conviction has not ariſen from books, but from ocular demonſtration.

THE working cattle are a ſmall ſpecies of oxen, of a hardy breed, as the uſage they endure abundantly teſtifies. That ſuperſtitious veneration paid to the cow, does not always enſure humane treatment to this animal; ſo looſe is the connection between religious belief and moral conduct. Black cattle during

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ing the dry ſeaſon are ſo poorly fed, that they barely ſurvive. A dozen of milk cows will hardly equal the produce of a ſingle one of your's, either in the article of cheeſe or butter.

THE buffalo ſeems here an uſeleſs animal; it enters not the draught, and not often carries burdens; a coarſe kind of rancid ghee is the only vivre it ſeems to afford. The goat, however, ſeems to attain the full perfection of the ſpecies. While the graſs is burnt up by the exceſſive heat, it nibbles ſucceſsfully among the roots for a ſubſiſtence. At preſent while the moiſture produces abundant vegetation, it wallows in ſo great plenty that the dug is diſtended ſo as to drag upon the ground.

IN Allahabad, the breed of ſheep is ſmall even for India; and the fleece conſiſts of a coarſe black hair, altogether unſuitable for cloth. Of this harſh ſtuff, however, ſuch as it is, ſmall rugs are made for the ſhepherds to ſhelter them from the rains, and to wrap their body during the night. Under theſe you ſee them ſhivering in the fields; followed by a few ſheep, or tending hogs. This laſt is the moſt humiliating condition to which either a Hindoo or a Muſſulman can be reduced. And as the Jews had ſimilar prejudices, the prodigal muſt have been in great diſtreſs before he ſubmitted to his patron, who "ſent him into the field to feed ſwine."

THE wages of theſe "hired ſervants," are ſo extremely ſmall, that there is little difficulty in believing that they are ſometimes reduced to the neceſſity of participating in huſks with the animals they tend. It is certain that even in the times of plenty, our grooms have been found eating the horſes meat, although their wages are regularly paid, and amount to double the price of country labour.

IN this diſtrict, the whole ſtock of a farmer is not perhaps worth eight rupees; when the price of his cattle is included, it ſtill amounts only to a paultry ſum. He is unſafe in laying out money on his farm, and he does not attempt it. The beſt informed native I have had the opportunity of conſulting, aſſures me that the Ryut has no ſecurity whatever in the poſſeſſion, no more than his ſuperiors the Aumil and Zemindar.

THE rents are levied by an irregular banditti, under the denomination of an army, who drive away the whole of a village, burn the houſes to the ground, and carry off the women and children. An action of this kind happened in the morning on the ſame ground which our army occupied in the evening, during our march to this place from Lucknow.

IF the ſtock of the farmer be inſecure, money lent is almoſt equally ſo. A man who poſſeſſes any thing beyond a mere ſubſiſtence, is induced to expend it on perſonal ornaments; rings for his wife's noſe and

and ears; or bangles for her ankles. Thus the whole property of a family is generally borne on the back of its members. Whatever is not diſpoſed of in this way is hid in the ground. There are traditions of money being concealed under this fort, and almoſt all the great buildings in India. Though I am apt to believe that ſuch reports are often current without any foundation in truth, it is certain the Begum of Azof Dowlah paid the demands of the Company made upon her huſband, by treaſure thus depoſited.

She ſent an eunuch with certain directions into a rugged field with a ſtring, which he fixed upon a peg he found there; from this he ſtept backwards, keeping the peg in the ſame line with his eye, and a third object mentioned in his direction. When he had extended his line to a certain mark, he there ſtopt, and ordered the ground to be opened, when twenty-three lacks of rupees were taken up.

A few perſonal ornaments are therefore the whole wealth, even of the better ſort of Ryuts; and this wealth flows in the ſame channel with his affections. A favourite child, is frequently decorated with taliſmans of ſilver hung round his neck, or tied to his arms. Theſe, according to the popular creed, are of power to repel all the machinations of demons, and to ward off all that hoſt of ills which "fleſh is heir to." The Muſſulmans indulge the ſame ſuperſtition, and are equally confident that they derive the

the ſame advantages by incloſing in the trinkets a few holy texts from the Coran.

THE fort of Allahabad, from its ſituation at the confluence of the two ſacred ſtreams, the Jumna and the Ganges, has a high reputation. It is reſorted to, as well as Benares and Gyah, by great numbers of devout pilgrims from all parts of India. There is at preſent an encampment of four thouſand Mahrattas from the diſtant province of Guzarat. They are the retinue of a pious widow, who has travelled thus far with the bones of her huſband, with a view to immerſe them at the point of junction of the two holy ſtreams.

EACH individual pilgrim avails himſelf of this opportunity of waſhing away, not merely his ſins, but all filthineſs of the fleſh, by this uſeful ablution. The ceremony of purification is performed by ſhaving every part of the body by the hands of a Brahmin, and afterwards bathing. A ſmall offering for this ineſtimable privilege is preſented to the officiating prieſts of the place. Next to their intereſt, that of the prince is conſulted in theſe ceremonies. A ſmall tax muſt be paid to the Nabob of Oude for their admiſſion to the ſpot. This tax amounts annually to a conſiderable ſum, with the collection of which the Britiſh have avoided all interference ſince their acquiſition of the fort. It is farmed out at a certain ſum to a native, who annually remits the amount to the Lucknow treaſury.

THOSE

THOSE officers, whoſe apartments are near the point of junction, are not a little annoyed by the midnight oriſons of theſe devotees. Their howlings under the windows, rather reſemble the noiſe of a madhouſe, or the wailings of deſpair, than the aſpirations of ſober piety.

WHAT is ſtill more embarraſſing, part of theſe ceremonies muſt be performed in a vaſt ſubterraneous cave, in the middle of the fort, which is ſupported by pillars, and extends far and wide in every direction. This noiſome dungeon, which affords to unbelievers an image of the gate of Tartarus, rather than the porch of Paradiſe, leaves the caves of the ſybils far behind it in every thing tremendous and diſguſting; and is ſaid to be infeſted by ſnakes and noiſome reptiles, and to penetrate under ground as far as Delhi. The popular legends of every country are thus marvellous and abſurd.

IT is certain, however, that the heat, and ſuffocating vapours, which continually exhale from it, is likely to prove fatal to the worſhippers; they are ſeen fanning each other after returning from viſiting it, with all the ſymptoms of having inhaled a noxious atmoſphere. In a few minutes my curioſity was literally *ſtifled;* I returned ſatisfied with enjoying a Piſgah view of theſe diſagreeable manſions of ſtench and devotion.

THE

THE pilgrims, to be admitted into this cave, muſt enter the gate of the fort; and as piety has frequently been employed as a cloak for cunning, the guard muſt be vigilant, and of greater ſtrength than might otherwiſe be required. Our recent poſſeſſion of a place, where the ſuperior ranks may be jealous of our incroachments, or envious of our power, demands peculiar circumſpection. The Greeks, we are told, entered Troy under pretence of devotion; and as the Muſſulmans are not more celebrated for honeſt dealing than the Greeks, our Commanding Officer muſt be commended for reſpecting a caution which they deſpiſed;—"*Timeo Danaos et dona ferentes.*"

RELIGIOUS fear is alone capable of extorting caſh from a Hindoo; for of all the trials of his faith and patience, that is the moſt ſevere which touches the purſe, and the only difficulty the Brahmin has to encounter is to thruſt his fingers there. An obſtinate ſtruggle between avarice and piety was lately exhibited by a large party of Mahrattas, about 12,000, who arrived here a few months ago. The Brahmins were offered four or five thouſand rupees in the name of the whole caravan; while a larger ſum was demanded on their part, accompanied with a threat of excluding the pilgrims from the holy precincts, if it was not immediately paid down. This had little effect, till a Brahmin, who knew his *monde*, offered to cut off one of his thumbs from his hand. Had this been the conſequence of their obſtinacy,

they muſt not only have loſt their caſt, but according to their own creed, the blood of this holy man muſt have been expiated by their whole poſterity. Such ſins of fathers are viſited upon their children, not for two or three generations, but *ad infinitum.*

In compariſon with ſuch a deſtiny as this, the ſum demanded was but a trifle; to the good pilgrims it appeared ſo; and they inſtantly paid it down.

Some of theſe victims of ſuperſtition annually drown themſelves at the junction of the ſtreams; and this being the moſt acceptable of all offerings, it is performed with much ſolemnity The perſon who thus undertakes a journey to the manſion of bliſs, muſt preſent a larger ſum to the prieſts, than the common herd of pilgrims. The rapidity with which the victim ſinks, is regarded as a token of his favourable acceptance by the god of the river. To ſecure the good inclination of the deity they carry out the devoted perſon to the middle of the ſtream, after having faſtened pots of earth to his feet.

The ſurrounding multitude on the banks, are devoutly contemplating the ceremony, and applauding the conſtancy of the victim; who, animated by their admiration, and the ſtrength of his own faith, keeps a ſteady and reſolute countenance, till he arrives at the ſpot, when he ſprings from the boat, and is inſtantly ſwallowed up amidſt univerſal acclamations. Five or ſix different perſons of either ſex, have, ſince

ſince our arrival, in defiance of nature, thus boldly ſnatched the crown of martyrdom.

BURNING a wife on the funeral pile of her huſband, is certainly the moſt painful exaction ever made by ſuperſtition on human ignorance. It ſeems, however, to be outdone by this more ſplendid effort of fanatical zeal; and drowning at Allahabad, appears to have ſuperſeded the uſe of the funeral pile. Of the latter I have heard but one inſtance ſince our arrival in theſe provinces.

IN a country where the deſpot is every thing, and the people nothing, immenſe public buildings are erected by the labour of his ſlaves. The fort of Allahabad, after all the cheapneſs of labour, muſt have coſt millions. It is ſaid to have been undertaken during the later years of Acber's reign, and to have been continued by ſeveral of his ſucceſſors. It is an immenſe ſtructure, ſo deeply founded on the brink of the two rivers, as to bid defiance to the aſſaults of both.

THERE is perhaps no building of equal ſize in Europe; this, however, is all that can be ſaid in its praiſe; for it has not even the appearance of being capable of holding out againſt a battering train. It is as deſtitute of elegance as of ſtrength; for though it contains an Imperial palace, and other ornamental buildings, it preſents no idea to the

the beholder but that of the monarch's power and his want of taſte.

THE Royal palace, and its twelve adjacent ſquares, are a complete model of an Aſiatic zenana. The upper rooms of the Imperial apartment command a view into each ſquare, where probably were lodged the choiceſt beauties from the twelve ſoubudaries of the empire.

IT is probable that this building, large as it certainly is, never contained one half of the wives of Acber; ſince it ſeems by the repreſentation given by Abul Fazel, to be only a miniature of the Haram at Agra, his ordinary reſidence. The Haram there, he ſays, "is of ſuch immenſe extent, as to contain a ſeparate room for every one of the women, whoſe number exceeds five thouſand. They are divided into companies, and a proper employment is aſſigned to each individual. Over each of the companies a woman is appointed *Darogha*; and one is ſelected for the command of the whole, in order that the affairs of the Haram may be conducted with the ſame regularity and good government as the other departments of the ſtate.

"EVERY one receives a ſtated ſalary, equal to her merit. The pen cannot meaſure the extent of the Emperor's largeſſes; but the ladies of the firſt quality

quality receive a monthly ſtipend, from 1610 rupees, down to 1028. Some of the principal ſervants of the preſence, have from fifty-one down to twenty rupees; and others are paid from twenty rupees up to forty.

"AN eſtimate of the annual expences of the Haram being drawn out, the Muſhreff writes a draft for the amount, which is counterſigned by the Miniſters of State; after which it is paid in a coin that his Majeſty has cauſed to be ſtruck ſolely for this purpoſe. This money is paid by the Grand Treaſurer to the Paymaſter-General of the Palace; and, upon a written order ſent by the Muſhreff of the gate, it is diſtributed among the inferior paymaſters of the Haram, and by them paid to the different ſervants thereof.

"THE inſide of the Haram is guarded by women, and about the gate of the royal apartments are placed the moſt confidential. Immediately on the outſide of the gate, watch the eunuchs of the Haram, and at proper diſtances are ſtationed the Rajpoots; beyond whom are the porters of the gates; and on the outſide of the incloſure, the Omrahs, the Ahdeans, and other troops, mount guard according to their rank."

"WHENEVER the Begums, or wives of the Omrahs, or other women of character, want to pay their compliments, they firſt notify their deſire to thoſe who

who wait on the outſide, and from thence their requeſt is ſent in writing to the officers of the place, after which they are permitted to enter the Haram. And ſome women of rank obtain permiſſion to remain there for the ſpace of a month.

"But beſides all the precautions above deſcribed, his Majeſty depends on his own vigilance, and that of his guards."

THE

## THE ANTIQUITY OF THE PLACE.

* * * * * * * * * * *

*Allahabad*, 1798.

THE antiquity of this city is ſupported not only by the tales of ancient tradition, but by large fields of rubbiſh, which ſeem to atteſt its former ſplendour, as well as its remote origin. The ſoil for ſeveral miles, in the vicinity of the fort, conſiſts of mortar, broken pottery, and brick-duſt. The names of Neah Saar, and Pouranah Saar, are ſtill kept up in the language of the place; and Piague was the antient name which diſtinguiſhed both of theſe flouriſhing towns, which probably occupied theſe extenſive fields of ruins. The ſituation of Allahabad being alike convenient for the purpoſes of internal commerce and defence, muſt have early pointed it out as an eligible ſite for a town; and this circumſtance affords no ſmall probability to the reports of its former importance.

THE

THE preſent city, which is probably of the ſame date with the garriſon, (the latter end of Acber's reign,) exhibits that picture of poverty, ruin, and deſolation, which they only can form an idea of who have viſited the towns of India. The men, tradeſmen, bullock drivers, merchants, and mechanics of every deſcription, neceſſary to the building of this immenſe garriſon, will hardly admit of a ſmaller population than twenty thouſand inhabitants to the city. For many years after, as this place continued to be the capital of a rich ſoubadary of the empire, this population probably increaſed. At preſent though the ſtraggling huts cover a ſpace of five miles, the inhabitants cannot much exceed ſixteen thouſand. Nine tenths of all the buildings are of mud, reared upon the foundations of more ſubſtantial edifices of brick, which have long ſince fallen to decay

THE far greater part of the inhabitants of India, as well as of this city, may be ſaid literally to *dwell in houſes of clay*. The walls are conſtructed of the common ſoil dug from the ſpot, and wrought up into a coarſe mortar, by being mixed with water and brick-duſt. A ſmall ſtratum is added to the wall day after day, till the whole is completed. This precaution is neceſſary; ſince the wall without obtaining hardneſs and conſiſtency from the ſun, could not ſuſtain its own weight. Thus the Hindoo builds his humble dwelling with the ſame materials, and after the ſame method with the ſwallow; the only difference ſeems to be that the latter, taught by nature,

claims

claims greater antiquity, and a greater ſhare of originality of invention; the former being evidently the copyiſt in this uſeful art.

THE buildings are all erected according to the caprice or convenience of each individual, who is guided by no rules either of taſte or general police in the ſize, form, or ſituation of his dwelling. Hence the ſtreets are ſometimes wide, but oftener wretchedly narrow; and they croſs each other in all directions with an irregularity which baffles deſcription. This motely aſſemblage of houſes, each roofed with tiles, or with a coarſe thatch covering, to defend it from the ſun and rains, conſtitutes the delightful *toute enſemble* of one of our largeſt provincial cities. That curſe originally pronounced againſt diſobedience, ſeems here to affect the houſes, as well as their owners: for nearly one half of this town conſiſts of naked walls, unroofed, and uninhabited, and faſt crumbling down into that "*duſt*" from which they were originally taken. If there be any exception from this obſervation, it is claimed by the *Shroffs* or bankers, and a few of the merchants. Their Serais or inns, ſeem to aſpire to a ſort of pre-eminence in wretchedneſs, from their total want of furniture, and their peculiar marks of deſolation. In theſe, however, you may ſometimes obſerve a conſiderable number of travellers regaling themſelves with their Hookahs, and retailing the news of the day with equal fluency, as your beſt coffeehouſe politicians, and like them deciding on the fate of nations, and

the conduct of ſtateſmen, with that happy confidence which ignorance or opinion alone can inſpire. If the removal of pain and laſſitude be an enjoyment, and if a profound inſenſibility to paſt or future evil be a pleaſure, theſe Muſſulmans are among the happieſt of mortals. They drown care by intoxication with opium, as effectually as Horace or Anacreon could effect it with wine; and though hoſtile to our ſyſtem, they too literally fulfil one of its precepts; "they take no thought for to-morrow."

THE only buildings in this vicinity, which have the ſmalleſt pretenſions to magnificence, are the Cemeteries of the Mahommedans; who, with a preposterous ſolicitude, beſtow more care and expence on the abodes of the dead than of the living. The finer mauſeoleums of Sultan Chuſero, and ſome other individuals of the imperial family, are ſtately edifices adorned with *jet-d'eaus*, and ſurrounded with a beautiful garden of ten acres of land. The ſums neceſſary for keeping in repair theſe monuments, of imperial grandeur, being long ſince withheld, they are rapidly haſtening to decay. In different parts, the ſuburbs of Allahabad are occupied by numberleſs tombs of Mahommedan ſaints, each provided with a ſmall niche, intended for burning a perpetual lamp, but the neceſſary funds are either exhauſted or abſtracted by their ſelfiſh poſterity, ſo that there is reaſon to apprehend that even the memorials of their ſaints will not prove everlaſting.

In almoſt every town of this part of India, the burying grounds of the Muſſulmans are ſufficiently extenſive for the whole number of inhabitants, though it is certain that ſcarcely a tenth part of the people of any diſtrict belong to that perſuaſion. Their number is decreaſing daily, notwithſtanding the caſual ſupplies it may receive by adventurers from the north. In our ſeapoy battalions a Muſſulman has of late become ſo rare, that the policy of having a proportion to balance any enterpriſe or combination of the Hindoos, can no longer be purſued.

Formerly the towns in theſe provinces were governed by a certain number of magiſtrates, and their policemen, who inſpected the markets and maintained the public order. A cutwal, a jemidar, and a wretched remnant of their eſtabliſhment, ſtill remains. Happily the Hindoo peaſantry can be controuled with a ſmaller weight of authority than almoſt any people. If countenanced in their complaints they are litigious in the extreme; yet their miſunderſtandings are chiefly pecuniary; and from the ſmall value of the conteſted property, they generally admit of an eaſy and ſummary deciſion.

Under the wretched government of the Vizier, you can hardly have any thing that merits the name of a judicial eſtabliſhment. Every petty officer is the deſpot of his little diſtrict, whoſe fiat determines every queſtion without appeal. Hence corruption is the very principle of the adminiſtration, and it pervades every

every part. As if law, equity, or humanity did no exiſt, the perſon aggrieved does not appeal to them, but approaches the magiſtrate with a preſent to intereſt his ſelfiſhneſs. A method invariably ſucceſsful, unleſs counteracted by placing a heavier largeſs in the oppoſite ſcale.

THE defects of this miſerable ſyſtem of judicature, are in many inſtances ſupplied by calling in the aids of ſuperſtition. A perſon who has a debt owing him which he wants influence or money to recover by a judicial ſentence, applies to his Brahmin, who places himſelf directly before the door of the debtor, where he remains day and night without eating till the claim is diſcharged. In the mean time, no proviſions, fire or water, can be introduced into the houſe, which is thus beſet by a Brahmin. Should the debtor prove refractory till the Brahmin died, nothing on earth can redeem his family from the infamy thus incurred. The ſtrength of prejudice, or the cravings of hunger, generally induce the debtor to ſatisfy the demand without incurring the dreadful ſentence of diſgrace in this life, and miſery in the next.

THE Britiſh government which promiſes to hear and determine all diſputes, has in ſome degree ſuperſeded this ſingular mode of proſecution; but in the Vizier's country, where I now write, the expedient is ſtill neceſſary, and is ſometimes put in practice: although even there the Brahminical rigour of diſcipline is ſomewhat abated. A Hindoo of conſiderable

ſiderable rank has aſſured me, that in former times not only the litigants but the whole village faſted ſo long as the Brahmin performed Dh'urnah * before any houſe belonging to it.

* This word ſignifies *to faſt*; but that phraſe does not expreſs the whole of the idea.

THE

## THE FANATICISM OF THE MAHOMMEDANS AND HINDOOS A BAR TO IMPROVEMENT IN AGRICULTURE.

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*Allahabad,* 1798.

THE conqueſts made by Europeans in India have gradually operated as a remedy againſt the cruelties and exactions of a barbarous government in theſe provinces; but another claſs of evils yet remain, which flow from the fanaticiſm or ſuperſtition of the natives; and theſe are ſcarcely leſs numerous, though unhappily more incurable. The number of religious mendicants and vagrants of all deſcriptions, is ſo great as not only to check the operations of rural induſtry, but frequently to unhinge the police, and diſturb the government under the moſt powerful ſovereigns. Tavernier has eſtimated theſe wandering devotees at an hundred and ten thouſand; but from what we read in the more authentic hiſtories, he is probably far below the actual number.

Mr.

Mr. Richardſon, author of the Arabic and Perſian dictionary, has well characteriſed them under the article Fakeer: "In this ſingular claſs of men, who, in Hindoſtan, deſpiſe every ſort of clothing, there are a number of enthuſiaſts, but a far ſuperior proportion of knaves; every vagabond who has an averſion to labour, being received into a fraternity which is regulated by laws of an uncommon and ſecret nature. The Hindoos view them with a wonderful reſpect, not only on account of their ſanctified reputation, but from a ſubſtantial dread of their power; the Fakeer pilgramages often conſiſt of many thouſands of naked ſaints, who exact wherever they paſs a general tribute, while their character is too ſacred for the civil power to take cognizance of their conduct. Every invention of perverted ingenuity, is exhauſted in diſtorting and deforming nature; ſome, of the moſt elevated enthuſiaſm, ſtriking off even their own heads on great ſolemnities, as a ſacrifice to the Ganges which they worſhip."

During the reign of Aurengzebe, while that monarch was marching into the Deccan, his baggage was attacked and plundered by a number of theſe banditti almoſt in the face of the whole army. In the time alſo of this moſt powerful of all the Mogul Emperors, the Fakeers, inſtigated by a rich old woman, named Biſtemia actually raiſed a rebellion. This old woman was followed chiefly on account of her high reputation in the arts of magic and ſorcery. Her inchanted pot was the ſkull of an enemy, in

which

which owls, bats, ſhakes, and human fleſh, formed a broth for frantic followers. No leſs than twenty thouſand of theſe fanatics, led by Biſtemia, were oppoſed by a General of Aurengzebe, who was inſtructed to reſiſt her by ſpells put into his hand by that Emperor. This artifice prevailed; for a battle enſued, in which Biſtemia and her whole army were cut off. Aurengzebe met his General after this exploit, and laughed with him at the ſucceſs of his ſpells.

Even in our own times, many bands of theſe vagabonds have been attacked and diſperſed by detachments of our troops. During the celebrated march of General Goddard, ſeveral hundred of theſe Fakeers, which he calls Pandarams, attacked and drove away ſome of his elephants and camels: theſe he ſoon recovered, by attacking in his turn the robbers, of whom he killed ſeveral: two thouſand hovered in his rear, but the experience of their brethren taught them in future to keep at a greater diſtance.

But no effort either of Britiſh power or policy has yet provided an adequate remedy to the evils ariſing from this fanatical ſpirit; which by abſtracting ſo many uſeful hands from induſtry, and by committing ſo many depredations upon property, continues to operate powerfully againſt the proſperity of India. The remedy applied by Aurengzebe, and ſeveral of his predeceſſors, is precarious and uncertain, and the moſt

moſt unlikely to be ever practiſed by the preſent rulers of the country. It was his policy, (and it was that of Acber and Jehanguir), to aſſume a high tone of fanaticiſm, and aſſert ſuch ſtrong religious pretenſions, as might either foil theſe religioniſts in a conteſt with their own weapons, or attract their veneration.

THE ſtrange and impudent pretenſions of Acber, the wiſeſt of their monarchs, to the gifts of prophecy and inſpiration, could hardly have been advanced from any other motive; and without ſome motive they are altogether unaccountable.

EUROPEAN authors afraid, perhaps, of gaining belief, have abſtained from mentioning the religious extravagancies of this Auguſtus of the Eaſt; but Abul Fazel, his own miniſter, may be truſted on this ſubject; and it is certain that he has employed many pages to prove his gift of inſpiration; and has devoted a whole chapter to explain his ſpiritual guidance, or power of miraculous converting profligate unbelievers.

"THE aſtrologers were appriſed of this (viz. his inſpiration), from the hour of his Majeſty's nativity, and whiſpered their exultations to each other. His Majeſty, however, did for ſome time caſt a veil over this myſtery, that it might not be known to ſtrangers. But that which the Lord willeth to be done who can avoid? In his infancy, he involuntarily per-

formed ſuch actions as aſtoniſhed all beholders; and when at length, contrary to his inclination, thoſe wonderful actions exceeded all bounds, and became diſcernible to every one, he conſidered it to be the will of the Almighty, and began to teach, leading many wanderers in the paths of righteouſneſs.

"MANY of his diſciples, by the bleſſing of his holy breath, obtain a greater degree of knowledge in a ſingle day, than they could gain from the inſtruction of other holy doctors, after a faſt of forty days. Numbers of thoſe who have bid adieu to the world, ſuch as Sonnaſſes, Calendars, Philoſophers, and Soffees, together with a multitude of men of the world, namely, ſoldiers, merchants, huſbandmen, and mechanics, have daily their eyes opened unto knowledge. And men of all nations and ranks, in order to obtain their deſires, invocate his Majeſty; conſidering their vows as the means of extricating themſelves from difficulty; and when they have obtained their wiſhes, they bring to the royal preſence the offerings they had vowed.

"FROM this great ſource of bounty, the following bleſſings have been obtained: ſucceſs in buſineſs; reſtoration of health; birth of a ſon; re-union of diſcontented friends; long life; increaſe of power and wealth. He who knoweth what will come to paſs, gives ſatisfactory anſwers to every one, and applies remedies to their afflictions; alſo many whoſe diſeaſes

are

are incurable, intreat him to breathe upon them, and are thereby reſtored to health."

THE manner of teaching by the Imperial Prophet is next deſcribed by this courtly writer, and it is no leſs farcical, than his pretenſions to ſuch a gift were impudent and abſurd. When the diſciple applies to his Majeſty for inſtruction, Abul-Fazel obſerves, that out of his great wiſdom he is very backward to comply; excuſing himſelf by ſaying, "how ſhall I teach till I have myſelf been inſtructed?" But, adds the hiſtorian, if there be in any one evident ſigns of truth, and he is very importunate, he is accepted; and on Sunday, when the ſun is in the meridian, he obtains his heart's deſire. "From beholding theſe wonders, thouſands of every perſuaſion have believed on him."

"THE perſon who wants to be initiated in all righteouſneſs, places his turban in the palm of his hand, and putting his head on his Majeſty's feet, ſaith, "I have caſt away my preſumption, and ſelfiſhneſs, which were the cauſe of various evils, and am become a ſuppliant, vowing to devote the remainder of my life in this world, to the attainment of immortality." Then his Majeſty ſtretches out the hand of favour, raiſes up the ſuppliant, replaces his turban on his head, ſaying, "my prayers are addreſſed to heaven for your ſupport, in order that your aſpiring inclination may bring you from ſeeming exiſtence, into real exiſtence."

To

To the practice of ſuch contemptible mummery, did the great Acber ſubmit; a monarch whoſe name is repeated in the Eaſt with exultation, and whoſe reign of fifty years conſtitutes the brighteſt period of the annals of Hindoſtan. It may be difficult to aſcertain how far this conduct was produced by ſpiritual pride and fanaticiſm in himſelf; or by political views of attempting to guide in a harmleſs direction the enthuſiaſm of his people. It is however certain, that the remedy has been temporary and precarious: it has increaſed already the flame of fanaticiſm; in the hands of his ſucceſſors the engine has often proved unmanageable. With them the ill extinguiſhed flame has ever been ready to burſt out afreſh; and to guide the enthuſiaſm of the people, has been found to be the prerogative of him only who can ſit in the whirlwind and direct the ſtorm. Perhaps the tolerating principles of the Britiſh Government, adminiſtered by the moderation and good ſenſe of individuals, may gradually allay and wear out the ſtrength of a paſſion which no human power has ever been able to reſiſt or controul.

Sir Thomas Roe, Ambaſſador of the India Company at the Court of Jehanguir, is the only Engliſh writer who notices this aſſumption of prophetic gifts as a part of the ſtate policy of the Mogul Princes. His letter to the Archbiſhop of Canterbury, dated at Agimere in 1616, will ſhew that even in theſe early days of our connection with Aſia, many efforts were made for the converſion of the natives, and from

from the ſentiments of the monarch, much more ſanguine hopes might have been entertained than circumſtances have warranted ſince that time.

"THE Mahommedan Mulhavies know ſomewhat of philoſophy and mathematics, are great aſtrologers, and can talk of Ariſtotle, Euclid, and other authors. The learned tongue is the Arabian. In this confuſion they continued to the time of Acber Shah, father to this king, without any knowledge of Chriſtianity. Acber Shah being a prince by nature juſt and good, inquiſitive after novelties, curious of new opinions, and excelling in many virtues, particularly in piety and reverence towards his parents, called in three Jeſuits from Goa, the chief of whom was Jerom Xaverius of Navarre. After their arrival, he heard them diſcourſe with great ſatisfaction, and cauſed F. Xaverius to write a book in defence of his religion, againſt both Moors and Gentiles; which, when finiſhed, he read every night, and had ſome part diſcuſſed. Finally he granted them his letters patent to build, preach, teach, convert, and to uſe all their ceremonies as fully as in Rome, beſtowing on them means to erect their churches, and places of devotion. In this part he gave liberty to all ſorts of men to become Chriſtians, even to his own court and blood, profeſſing it ſhould be no cauſe of diſfavour. Acber Shah himſelf continued a Mahommedan, yet he began to make a breach in the law; for conſidering that Mahommed was but a man, and

a king as he was, and therefore reverenced, he thought he might prove as good a prophet as himſelf.

"THIS defection of the king ſpread not far; a certain outward awe withheld him, ſo he died in the formal profeſſion of his ſect. Jehanguir Shah his ſon, the preſent king, being the iſſue of this new fancy, and never circumciſed, bred up without any religion at all, continues ſo to this hour, and is an atheiſt. Sometimes he will profeſs himſelf a Mahommedan, but always obſerves the holidays, and does all ceremonies of the Gentiles. He is pleaſed with all religions, but loves none that changes; and falling into his father's conceit, has dared to proceed farther in it, to profeſs himſelf for the main of his religion to be a greater prophet than Mahommed, and has founded to himſelf a new one, being a mixture of all others, which many have received with ſuch ſuperſtition, that they will not eat till they have ſaluted him in the morning; for which purpoſe he comes at ſun-riſe to a window, open to a great plain before his houſe, where multitudes attend him. When the Moors about him talk of Mahommed, he will ſoothe them, but is glad when any one will laſh out againſt him. Of Chriſt he never utters a diſreſpectful word, nor do any of all theſe ſects; which is a wonderful ſecret working of God's truth, and worth obſerving.

"As

" As for the new planted Chriſtian church, he confirmed and enlarged its privileges, ſpending two hours every night for a year, hearing diſputes; often dropping words of his converſion, but to a wicked purpoſe. To give the more hope, he delivered many youths into the hands of F. Franciſco Corſi, ſtill reſident here, to teach them to read and write Portugueze, and to inſtruct them in human learning, and the law of Chriſt. To that purpoſe the father kept a ſchool ſeveral years, to which the King ſent two princes, his brother's ſons, who being brought up in the knowledge of God, and his Son our bleſſed Saviour, were ſolemnly baptized in the church of Agra, with great pomp; being firſt carried up and down all the city on elephants in triumph; and this by the King's expreſs order, who would often examine them to ſee what progreſs they had made, and ſeemed well pleaſed with them. This made many bend the ſame way, being ignorant of his Majeſty's intention; others, that knew him better, ſuppoſed he ſuffered this in policy to render theſe children odious to the Moors for their converſion, the ſtrength of his eſtate conſiſting in them.

" But all men miſtook his deſign, which was thus diſcovered: When theſe and ſome other children were ſettled, as was thought, in the Chriſtian religion, and had learnt the principles thereof, as to marry but one wife, not to be coupled with

with infidels, &c. the King ſent the boys to demand Portugueze wives of the Jeſuits; who thinking it only an idle notion of the boys, chid them, and ſuſpected no more. But that being the end of their converſion, to get a woman for the King, and no care being taken in it, the two princes came to the Jeſuits, and delivered up their croſſes, and all other tokens of their religion, declaring they would be no longer Chriſtians, becauſe the King of Portugal ſent them no preſents, nor wives, as they expected.

"THE father ſeeing this, began to doubt that there was more in it, than the boys diſcovered, eſpecially ſeeing their confidence, that had caſt off the awe of pupils; and examining the matter, they confeſſed that the King had commanded them. The Jeſuits refuſed to receive their croſſes, anſwering that they had been given by his Majeſty's order, and they would not take notice of any ſuch ſurrender from boys, but bid them deſire the King to ſend one of thoſe who are, according to order, to deliver all his commands, whoſe words are by privilege a ſufficient warrant, and then they would accept of them; hoping the King would not diſcover himſelf to any of his officers in this pitiful plot. The boys returned with this meſſage, which enraged the King; but being deſirous of breaking up the ſchool, and withdrawing the youth without noiſe, he bid them call the Jeſuits to the womens door,

door, where, by a lady, he gave the order; and without ever taking any notice ſince of any thing, his kinſmen were recalled, and are now abſolute Moors, without any taſte of their firſt faith: and here ended the converſions of theſe infidels."

*Allahabad,* 1798.

THE expence and profits of huſbandry in this part of India, it is not eaſy to aſcertain, and there has hitherto been few attempts to illuſtrate this ſubject.

ON the banks of the Jumna, which I am now approaching, I have fortunately obtained a few ſketches from a very intelligent officer *, whoſe enquiries were made perſonally, and on the ſpot.

WHEAT is a principal crop in this diſtrict; and the land moſt favourable to it, is a rich ſandy loam, a very common ſoil here.

WHEREVER

* Captain Hoare, aſſiſtant ſurveyer.

WHEREVER the land is ſituated beyond the reach of the river, manure is as neceſſary as it is in England; and all ſorts of it would no doubt be employed that did not interfere with the prejudices of the people. Human ordure is of this claſs, and unfortunately their predilection for cow-dung in plaiſtering their walls, and as fuel, operates againſt the extenſive uſe of this important article in rural economy. The lands thus become ſo impoveriſhed as to defeat the purpoſe of cultivation; and when this is the caſe they turn ſheep upon them, a ſlight ſubſtitute, and ſlow in recovering them.

THE commencement of rain in June, is the ſeaſon when they begin to plough; and a ſingle ſtirring is only given till the period when they ceaſe. The field is then ploughed fifteen different times before the reception of the ſeed, a circumſtance which fully proves the ineffiacy of the Indian plough. The harrowing, or rather rolling, is performed by means of a large log drawn twice or thrice over the land by two oxen. The ploughing, if it deſerves that name, is performed with great expedition, from the lightneſs of the implements, and the ſlight impreſſion made upon the ſoil. A biggah, which is reckoned one third of an acre, is tilled by one man and two cattle, many different times in a day. September and October are the months of ſowing, and the quantity thrown upon a biggah is thirty ſeer, or nearly one Wincheſter buſhel.

THE weeding of wheat is not an uniform practice; between the different ploughings, however, the labourers are employed in gathering up the roots of ſuch weeds as might vegetate. When theſe operations are compleated, and the grain ſown, vegetation proceeds with great rapidity; and the univerſal dryneſs of the cold ſeaſon in India, impoſes new labours upon the huſbandman, who is obliged to water his crop three ſeveral times. The firſt watering is given when the grain has riſen ſix or ſeven inches above the mould, and the ſucceſſive repetitions of it as the convenience of the former, or the neceſſity of his fields may require. The watering land is a taſk far more laborious than the cultivation of it. Four bullocks, and three waterers, are with difficulty able to water an acre in nine days. In ſome ſituations the water is raiſed from wells in the manner I have deſcribed in a former letter; in others it is carried in bags, four men to each, from tanks. As theſe reſervoirs may be at a greater or ſmaller diſtance, the labour and expence muſt be various; in all ſituations both are conſiderable.

THE price of labour is in this diſtrict, about two rupees, eight anas per month, or one ana and a half per day. The practice of giving perquiſites in kind to labourers, which lately prevailed in Scotland, is found here: Each labourer, beſide the wages already ſpecified, receives one coarſe blanket annually, and three, or ſometimes four maunds of wheat at reaping time. The wages of a ploughman, reaper, and waterer,

waterer, are nearly the ſame; their emolument in a plentiful year, though only about three-pence of our money, yields a pretty abundant ſupport; and where wages are higher than neceſſary to ſubſiſtence, the ſame pernicious idleneſs and diſſipation, remarked in the labourers with you, are prevalent here.

THE protection of the ſeed and crop is neceſſary all over this country: ſo numerous are the predatory enemies of the poor ryut. A woman or a boy is placed to watch the field, and prevent the incurſions of the deer and wild hogs; who as well as the birds are extremely deſtructive.

THE average produce of a biggah in this diſtrict, is reckoned fifteen maunds, the Ayeen Acbery ſtates it at eighteen; but this muſt be underſtood of the beſt *(poulylands)* crofts. An exact account of the taxes paid by each diſtrict, and the rent-roll of each proprietor, in the time of Acber, may be deemed a great acquiſition, towards a ſtatiſtical account of Hindoſtan; ſince it furniſhes a point of compariſon between that and the preſent time.

IN every country artificers and tradeſmen are neceſſary to aid the huſbandman. Simple as the rural implements of the Hindoo are, he requires for their conſtruction and repair the labour of a blackſmith, and ſometimes of a carpenter. The pay of each for keeping one plough in ſufficient order, and the other implements of a farm, is in kind, being twenty ſeer

of

of wheat annually. Charitable inſtitutions, and a ſtated proviſion for religious purpoſes, are alſo levied upon the farmer, who pays from fifteen to twenty ſeer yearly, for each plough he employs.

ANOTHER conſiderable burden is the maintenance of his cattle; a number are abſolutely neceſſary to almoſt every operation, whether of ploughing, harrowing, watering, or thraſhing. The laſt proceſs is in the Eaſt more properly termed *heading out* the the grain. It is performed by five or ſix oxen, travelling round upon the ſame floor; when employed in this labour, the muzzling of them is expreſsly forbidden by the Hindoo laws. But here neceſſity often ſuperſedes it; and a poor Ryut, in a bad ſeaſon, is compelled to limit the privileges of the ox, in order to preſerve his ſtarving family. Probably the Jews, who were bound by a ſimilar precept, were alſo ſometimes urged to infringe it, by the ſtrong influence of the ſame motive. The herdſman is alſo a neceſſary part of the expence of keeping cattle; his pay conſiſts of a blanket annually, and half an ana per month for each bullock; if, however, the herd is numerous, he receives only a limited ſum for the whole.

THOUGH wheat be the prevailing crop on the Jumna towards Agra, and Delhi, it is by no means the only produce. On the contrary, the ſame practice obtains here, which I have elſewhere noticed, of ſowing different crops on the ſame ground; particularly

cularly ſuch as come to maturity nearly at the ſame time. *Jeauw* (barley), *mutur* (peas), ſome of the oil crops, and the yellow dye, called *khooſoom* (a marigold), are often mixed with wheat, a mode of huſbandry followed in ſome parts of Britain, but always injudicious. Other miſcellaneous crops are alſo ſown, but not promiſcuouſly with wheat, which come to maturity at different times; and this appears better huſbandry, though perhaps ſtill incorrect.

THE average rent of wheat land is about two rupees and a half per biggah, which is nearly one pound ſterling per acre. One half of the produce is alſo a common rent, in this tract; and where that is the agreement, an overſeer, on the part of the farmer and landholder, attends on the reapers, his wages paid by the latter: ſuch overſeers are common in every village. When the rent is paid in caſh, a *Muſhahut* (meaſurer), is employed, who receives one half ana for each biggah, under his charge. The ſame ſum is allowed to the *Amœn*, or ſuperintendant of the meaſurer.

THE extent of farms is in this country very limited, for it muſt bear a proportion to the capital of the tenant which is generally ſmall: nor is there here the ſame opportunity afforded of adding to his ſtock, what he can raiſe by credit;

as the intereſt of money is ſo great, the expedient would prove ruinous. Hence the ploughman is frequently the occupier of the farm, and his intereſt in it is only annual. With one plough he can cultivate about ſixteen biggahs, or five acres, an extremely ſmall poſſeſſion, but his wants and expenditure are equally limited. A ſmall piece of cloth around his middle, generally with one coarſe blanket, and a ſort of turban, conſiſting of a cotton clout, make the whole of his wardrobe. His food is the cheapeſt grain and vegetables; a little ghee, with a pinch of ſalt between his finger and thumb. Such is the mode of life providence has allotted for many thouſand years to the Hindoo farmer; a lot which the fanciful Abbé Raynal has painted as ſo angelical. His picture is indeed beautiful; but it bears not the ſmalleſt reſemblance to the original.

If, however, the mere production, and preſervation of human life, without any regard to knowledge or enjoyment, be an advantage, this ſtate of huſbandry may be regarded in a favourable point of view; for it ſeems as well calculated for population as any other. A family, conſiſting of a wife, children, and a few ſervants, maintained on every five acres arable, and as much waſte land, implies a great number of inhabitants; and probably the whole of Hindoſtan is capable of being brought to this ſtate. But the ſubſiſtence of ſuch a family,

family, allowing one half of the produce to the landholder, ſeems to be reduced to two pounds ten ſhillings of our money; a revenue ſo ſlender, as to exclude every idea of enjoyment except the preſervation of life.

## OF THE CULTURE OF THE PALM TREE, AND THE BAMBOO.

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*Allahabad*, 1798.

The Palm tree, next to the bamboo, is the moſt univerſally uſeful which India produces; and is therefore cultivated in almoſt the whole peninſula, as well as in the iſlands. Of the three different ſpecies, the firſt and moſt uſeful is the *Cocoa* nut tree, which grows almoſt perfectly ſtraight, to the height of forty or fifty feet; and is nearly one in diameter. It has no branches, but about a dozen leaves ſpring immediately from the top: theſe are about ten feet long, and nearly a yard in breadth towards the bottom. The leaves are employed to cover the houſes of the natives; to make mats either for ſitting or lying upon. The leaf when reduced to fine fibres, is the material of which a beautiful and coſtly carpetting is fabricated, for thoſe in the higher ranks; the coarſer

coarſer fibres are made into brooms. After theſe uſeful materials are taken from this leaf, the ſtem ſtill remains, which is about the thickneſs of the ankle, and furniſhes firewood.

THE wood of this palm, when freſh cut, is ſpungy; but like that of the palm tree, it becomes hard, after being ſeaſoned, and aſſumes a dark brown colour. On the top of the tree, a large ſhoot is produced, which when boiled reſembles brocali, but is ſaid to be of a more delicate taſte; and though much liked, is ſeldom uſed by the natives; becauſe on cutting it off the nith is expoſed, and the tree dies. Between this cabbage-like ſhoot, and the leaves, there ſpring ſeveral buds, from which, on making an inciſion, there diſtills a juice differing little from water, either in colour or conſiſtence. It is the employment of a certain claſs of men to climb to the tops of the trees in the evening, with earthen pots tied to their waiſts, which they fix there to receive the juice, which is regularly carried away before the ſun has had any influence upon it. This liquor is ſold in the Bazars by the natives, under the name of Toddy. It is uſed for yeſt, and forms an excellent ſubſtitute. In this ſtate it is drunk with avidity, both by the low Europeans and the natives; and is reckoned a cooling, and agreeable beverage. After being kept a few hours, it begins to ferment, acquires a ſharp taſte, and a ſlight intoxicating quality. By boiling it, a coarſe kind of ſugar is obtained; and by diſtillation, it yields a ſtrong ardent ſpirit,

rit, which being every where ſold, and at a low price, conſtitutes one of the moſt deſtructive annoyances to our ſoldiers.

The name given to this pernicious drink by Europeans, is Pariah Arrack, from the ſuppoſition that it is only drank by the Pariahs, or outcaſts, that have no rank. It is true that no Hindoo of any of the four caſts is allowed by his religion to taſte any intoxicating liquor; and in general this reſtriction is only violated by ſtrangers, dancers, players, and outcaſts. There are, however, exceptions; and I have myſelf ſeen a Hindoo confeſs that he was drunk, who did not ſeem to be deſerted by his companions on account of that *faux pas*. The liberties which Muſſulmans take with the precepts of their religion are notorious. The wine or liquor mentioned by Quintus Curtius as a drink of the natives, may have been the liquor uſed by the Greeks.

The trees from which the toddy is drawn, do not bear any fruit; but if the buds be left entire, they produce cluſters of the cocoa nut. This nut in the huſk, is as large as a man's head; and when ripe falls with the leaſt wind. If gathered freſh, it is green on the outſide; the huſk and the ſhell are tender. The ſhell, when diveſted of the huſks, may be about the ſize of an oſtrich's egg, and is lined with a white pulpy ſubſtance, which contains about a pint and a half of liquor like water; and though the

the taſte be ſweet and agreeable, it is different from that of the toddy.

In proportion as the fruit grows old, the ſhell hardens, and the liquor diminiſhes, till it is at laſt entirely abſorbed by the white milky ſubſtance; which gradually acquires the hardneſs of the kernel of the almond, and is almoſt as eaſily detached from the ſhell. The natives uſe this nut in their victuals; and from it they alſo expreſs a conſiderable quantity of the pureſt and beſt lamp oil. The ſubſtance which remains after this operation, ſupplies an excellent food for poultry and hogs. Cups, and a variety of excellent utenſils are made of the ſhell; many of which you muſt have noticed on our European tables.

The huſk of the cocoa nut is nearly an inch thick, and is perhaps the moſt valuable part of the tree; for it conſiſts of a number of ſtrong fibres, eaſily ſeparable, which furniſhes the material for the greateſt part of the India cordage; but is by no means the only ſubſtitute which the country affords for hemp. This the natives work up with much ſkill.

The Palmyra, or as it is called by the Portugueze the *palmeiro bravo*, a name borrowed from them by the Engliſh, is taller than the cocoa tree; and affords ſtill greater ſupplies of toddy; becauſe its fruit is of little requeſt from the ſmallneſs of its ſize;

ſize; the produce of the tree is therefore generally drawn off in the liquid ſtate. This tree, like the cocoa, has no branches; and like it too ſends forth from the top a number of large leaves, which are employed in thatching houſes, and in the manufacture of mats and umbrellas. The timber of this tree is much uſed in building.

The Date tree being ſmaller makes not ſo conſpicous a figure in the Indian foreſt as the two laſt deſcribed. Its fruit never arrives at maturity in India: toddy is drawn from it, but not in ſuch quantity, nor of ſo good a quality, as that which is produced by the other ſpecies of the ſame genus. The India date tree is therefore of ſmall value comparatively with the palmyra, and that is much inferior to the cocoa.

The Bamboo is the moſt uſeful of all trees to the natives: in India as well as China, this tree has degenerated into above fifty different ſpecies, which are applied in rural economy to ſtill a greater number of uſes. It is called by botaniſts Arundo bambos, and Arundo arbor, names firſt given by the Portugueze from the violent exploſions it makes in the fire, cauſed by the expanſion of the air between the knots.

Pliny ſpeaking of this tree, has been guilty of an exaggeration, or perhaps a miſtake, in aſſerting that a ſingle one is ſufficient to make a boat: *Navigiorum etiam vicem præſtant, (ſi credimus) ſingula inter-*

*India.* The truth is, that when made into a frame, and covered with a hide, it ſerved this purpoſe in the ſame manner as the Coracles of the ancient Britons; and in this way it was frequently uſed by the troops of Hyder-Ally in croſſing rivers. The bamboo in its natural ſtate being no thicker than a man's thigh, cannot ſingly ſupply the place of a canoe.

WHAT is moſt remarkable of the bamboo is the rapidity of its growth, and the ſhort ſpace in which it arrives at perfection. Its immenſe height is completed in a ſingle year; and during the ſecond its wood acquires all that hardneſs and elaſticity which renders it ſo uſeful for the various purpoſes to which it is applied. As the growth of the moſt rapid of our timber trees is incomparably ſlower, and the number fewer on the ſame ſpace of ground, it may not be raſh to affirm, that a ſingle acre of thriving bamboos will furniſh as much wood as ten or fifteen of any other tree.

THE joints either are, or can eaſily be made water-tight, when they are uſed as pitchers for water, oil, or other liquids. This tree is often applied for making mats, and baſket work, for the frames of ſlender houſes, whoſe roofs are of the ſame material: its toughneſs and fiſſibility, render it peculiarly fit for all theſe purpoſes; as well as carts, beds, rigging of boats, and various other uſes in rural economy.

THE thick inſpiſſated juice of this reed, called *ſacar mambu*, is of a grateful taſte, and has long been a favourite medicine in the Eaſt, without perhaps much accuracy of diſcrimination of the caſes where it might be beneficial. This ſacarum is ſaid to be firſt uſed by the *Hakims* in medical preſcriptions.

THE bamboo grows in ſtools, of twenty or thirty from the ſame bottom, in the manner of our oaks after being cut over. It riſes to a great height, ſpreading as it advances, till it meets with the adjoining ſtools, and thus it completely excludes the rays of the ſun from the intervening arches; the colour of the reeds is at firſt green, and afterwards a pale yellow, affording to the natives a delightful retreat from the rays of the ſun, and as ſome ſuppoſe, the primitive model of the Gothic arch.

OF

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*Chunar,* 1798.

It is fortunate for Great Britain that ſhe is not dependent on her Weſt India iſlands for the articles of ſugar and rum, which are now become in ſome meaſure neceſſaries of life to a large portion of the inhabitants. The havoc made by that deſtructive climate, will neceſſarily become more ſenſibly felt in proportion as foreign territories are enlarged; the mortality in time of war, among the troops neceſſary for the defence of theſe iſlands muſt in time become ſo heavy a drain upon the effective ſtrength of the nation, as may render it a politic meaſure to abandon them to their fate.

In that event, Bengal will furniſh an ample ſupply of the above-mentioned articles, for its capacity of

producing them at a much cheaper rate is fully eſtabliſhed *. In the Britiſh Weſt India iſlands, ſugar coſts the planter at an average 1l. 18s. per cwt. allowing the rum to defray the contingent expences of his eſtate; while in Bengal it has been ſhewn by the beſt informed men in this country, that the ſame quantity can be manufactured at nearly 4s. 8d. ſterling. The eaſe, ſimplicity, and cheapneſs of cultivation, will account for this great difference, in conjunction with the low price of labour, which, at a medium, does not amount to two-pence a day for each workman. In ſome places labour may be purchaſed ſtill lower; and being paid frequently in grain it is ſtill more lightly felt by the cultivator.

THE utenſils, ſtock, and ſlaves, are very expenſive in the one country; in the other comparatively nothing. A mill conſtructed of two wooden rollers, in value one rupee, with a few earthen pots, is the whole out-laid ſtock in many diſtricts; in others, where the cattle mill is uſed, the expence is ſtill within the fortieth part of what the moſt trifling work would coſt in the Weſt Indies. The extenſive waſtes capable of producing abundantly, but unproductive merely from want of cultivation, afford a wide range for this culture, without much additional expence for the rent of land. In Jamaica we are informed, that to clear and ſettle a plantation capable

* Vide an addreſs to the Gov. General in 1788.

ble of producing 100 hhds. of ſugar annually, would require an advance of 20,000l. for mills, utenſils, and neceſſary erections. If even all theſe charges could be avoided, ſtill the price of labour would prevent a competition in theſe iſlands, where it is ſaid to amount to two thirds of the whole coſt of ſugar. The planter who hires the labour of other ſlaves, which is frequent, and this is perhaps nearly the price at which labour can otherwiſe be procured, pays one ſhilling and ſeven-pence daily for each ſlave, or about ten times the wages of a Bengal labourer.

THESE facts have been ſubmitted ſome time ago to the public, by a reſpectable merchant in Calcutta, and as they become more generally known, will perhaps bring the labour of ſlaves into greater diſrepute, than general arguments againſt the equity of that traffic. They will probably ſuggeſt the propriety of employing the large proportion of ſhipping in the port of Calcutta in this trade, rather than allowing it to be engroſſed by foreign merchants. American and Daniſh ſhips, or veſſels under theſe colours, are annually increaſing in the port of Calcutta; if by their means the foreign market be more cheaply ſupplied, the time may come when they may ſuperſede in a great meaſure the other traders.

SUCH facts, if found true in experiment, will plead the expediency of relieving Great Britain, from the heavy burden of the defence of the Weſt Indies; and

and of exonerating its inhabitants from that enormous tax they pay in the high price of ſugar, and of admitting the great body of the natives of India to employ their labour on a large branch of cultivation, for which nature ſeems to have adapted their country †. But it is the buſineſs of private individuals to ſtate facts that come under their notice; to frame regulations is the province of their ſuperiors.

We have already noticed ſome particulars relative to the produce of ſilk, with which India ſeems to have ſupplied the market of Europe from the earlieſt times. Greece, Italy, and France have in ſubſequent periods ſupplanted the natives in this trade, in the ſame manner that America has done with regard to indigo.

A conſiderable quantity of ſilk is produced in the countries on the north eaſt of Bengal, from wild worms, and worms fed on other plants than the mulberry. Some of this is exported to the weſt of India, and part reaches Europe. The Bengal ſilk produced in the filatures of the natives, is deemed inferior to the beſt Italian. That defect has not yet been accounted for; nor is it aſcertained whether it be owing to defective manufacture, or a wrong treatment of the worms. Five varieties of the ſilk worm are known; but that is preferred, which, from its

† Vide remarks on the agriculture of Bengal.

its name, has been deemed indigenous. When young they all require to be fed with leaves cut very fine; but as they advance in growth, their food is leſs minutely cut, till at laſt the leaves are given entire. In little more than a month they arrive at their full ſize; after changing their ſkin for the laſt time, they begin their cocoons. They are then removed into baſkets, with ſeparate apartments, where they ſpin their web. The cocoons being compleated, a few are ſet apart for propagation, the reſt are placed in the heat of the ſun, to kill the chryſalis.

The peaſants ſell their beſt cocoons to the Company's filatures: from ſuch as are rejected, they wind off the ſilk. The cocoons, as a preparation for this, are put into a hole dug for the purpoſe, with the excretions of the worms collected from the baſkets in which they were fed. A little water is then added, and the whole covered up to effervеſce for two days. They are then removed and boiled in an earthen veſſel; when the ſilk is wound off by a hand reel.

The expence of firſt planting the mulberry in a biggah of land, including ploughing, hoeing, weeding, and other charges, may at a medium amount to fourteen rupees; and the charge annually after may be eſtimated at nine rupees. The plant is frequently ſold to the feeders by the load, and the uſual price is about twenty rupees per biggah; if from this the annual charge of culture, and the intereſt of money

money advanced during the firſt year be deducted, a profit to the cultivator of between three and four rupees will remain ‡.

THE ſeveral profits of the feeder, ſpinner, and reeler of ſilk, cannot be properly aſcertained; but as the profits of different kinds of labour balance each other, they are probably very nearly on a footing. From one biggah of land two mauns of cocoons may be produced, at eighteen rupees per ſeer when reeled. The reeling is a tedious operation, and adds about a rupee and a half to the price of the ſeer of ſilk. Two ſeer of reeled ſilk is the produce of one maun of cocoons; and this on an average is reckoned worth fifty ſhillings.

THESE eſtimates to be accurate would require allowance for that ſilk of inferior quality uſed for the India market, which reſembles that known in Italy by the name of Floretta Another coarſe produce is obtained from the fur picked off from the cocoons; it is ſpun into yarn, and manufactured into carpets.

THE hand reel in this country participates ſtrongly of the ſimplicity and cheapneſs of all the implements employed by the natives The wheel for cotton ſpinning may be conſtructed for a few anas; although

‡ For a detail of theſe calculations, vide Remarks, &c.

though it performs the ſame work as our ſpinning wheels, and upon ſimilar principles. I have only obſerved women at this employment; and in a country where the manufactures are perfectly calculated for their labour, it is ſurpriſing how ſeldom they are employed. Induſtry can hardly be ranked among their virtues. Among all claſſes it is neceſſity of ſubſiſtence, and not choice, that urges to labour: a native will not earn ſix rupees a month, by working a few hours more, if he can live upon three: and if he has three he will not work at all.

## CULTURE OF OPIUM AND TOBACCO.

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*Benares, Nov.* 1797.

OPIUM is cultivated in this neighbourhood, and that of Patna to a conſiderable extent; for it conſtitutes a branch of the commerce which Bengal carries on with Europe, China, and other parts to the eaſtward, of no ſmall importance. The virtues of this vegetable production as a medicine have long been ſo well known, that they require no illuſtration. In Aſia, however, this drug conſtitutes one of the luxuries of life almoſt in univerſal uſe. It ſupplies the place of fermented liquors; and operates upon the conſtitution with equal violence. The Turks in Europe are fond of it to exceſs and ſo are the whole of the inhabitants to the eaſt of India.

IT is difficult to determine whether the uſe of opium or of fermented liquors is moſt detrimental to ſociety:

ſociety: unhappily the victims who fall a ſlave to either, are enſnared by a habit which they find it impoſſible to relinquiſh; becauſe the conſtitution, when habituated to a ſtrong ſtimulus, becomes incapable of carrying on the functions of life without continual excitement; which of itſelf brings on debility and premature decay. The Nabob of Oude, who died a few weeks ago, had accuſtomed himſelf to exceſſive dozes of it, which is ſaid to have ſhortened the period of his life.

OPIUM is the produce of a ſpecies of the poppy, Papaver *ſomniferum*, whoſe root and ſtem become pretty large, and abound with a bitter juice. The ſtalk of this plant riſes to the height of three or four feet, and produces oblong indented leaves, reſembling thoſe of the lettuce, while the flower has the appearance of a tulip. When at full growth an inciſion is made at the top of the plant, from whence there iſſues a white milky juice, which congeals before it is gathered. This operation upon the plant is repeated two, or three times; but every ſucceeding produce becomes leſs abundant and of inferior quality. After theſe proceſſes the opium is kneaded with water till it aſſume the conſiſtence of pitch, when it is made into ſmall cakes.

THE opium of Bengal, like the other vegetable produce of this country, is far inferior in ſtrength to that of Europe; and this being perfectly aſcertained it is adminiſtered by the medical practitioners in

far greater quantity: In part, however, this may be owing to the imperfection of the art of purifying among the natives.

THE culture of this drug is a branch of agriculture long known to the natives of theſe provinces; but for the improvement and extenſion of it, they are probably much indebted to the interference of Europeans reſiding among them. It requires the beſt ſoil well manured; and the crop demands much labour and attention, during its whole progreſs, while the produce is not reckoned equally valuable to that of ſugar or tobacco. Except in a few ſituations, the natives are not deſirous of cultivating opium. The money advanced by the contractor, and the expectation of his countenance and intereſt, induces them to embark in the buſineſs, rather than any ſanguine hope of profit.

THE produce of an acre is more variable and uncertain under this than perhaps any other crop. It has been eſtimated at ſixty pounds weight per acre by ſome, and at thirty by others; the laſt is probably the juſteſt average*.

A ſmall quantity of ſeed yielding oil to the value of two or three rupees per acre, is the grower's only advantage, beſides the raw juice of the poppy which he

* Vide Remarks, &c. p. 80; alſo Dr. Keir.

he delivers to the contractor, at a certain price fixed by the contract. The medium rate may amount to one rupee for five quarters of a pound weight of this juice.

THE poppy land muſt be thoroughly pulveriſed by twelve or fifteen ſtirrings before the ſeeds are ſown; and at that period, too, it muſt be raiſed in ridges for watering: ſeveral weedings, a dreſſing of manure, and frequent irrigation, ſucceſſively follow during the growth of the plant. That is no ſooner compleated, than a very conſiderable labour commences in gathering the juice; during two or three weeks a number of perſons are employed in making inciſions with a ſmall inſtrument in each capſule; and in the morning they return to ſcrape off the juice exuded from the wounds.

A produce of between twenty and thirty rupees each acre is, perhaps, a more ſcanty reward for ſo much labour, than what is afforded by a crop of corn: But to Europeans the trade is faſcinating: its actual produce almoſt never coincides with the true average. If inſects, wind, rain, or hail deſtroy the crop of one ſeaſon; another year, peculiarly fortunate, perhaps enriches the whole cultivators. This hazard inſtead of checking, encourages individuals, in proportion to their hopes of perſonal good fortune.

THE

THE raw juice being thus procured, the preparation of it is carried on under the immediate ſuperintendence of the contractor. The proceſs conſiſts of evaporating the watery particles by the heat of the ſun; which are replaced by oil of poppy ſeed, to prevent the drying of the reſin. The opium is formed into cakes. covered with leaves of the poppy; and when ſufficiently dry is packed in cheſts with the chaff of poppy ſeeds.

MUCH precaution is neceſſary in this proceſs to detect adulterations, which are frequent both in raw and purified opium. The materials of adulteration are not eaſily diſcoverable; they have been ſuppoſed to be an abſtract from the ſtalk and leaves of the poppy, and gums and reſins of various plants.

THE facility of adulteration ſeems to juſtify the monopoly reſerved by the Hon Company of this drug; perhaps too in a moral view it is defenſible, as it is certainly a matter of ſound policy to diſcourage the internal conſumption of it among the inhabitants. In China it is prohibited §; but China notwithſtanding is the great market for opium; for there, as every where elſe, vicious appetite is often ſtronger than legal reſtraint.

TOBACCO

§ Hoopoo's proclamation againſt it at Canton, Aſiatic Regiſt. Vol III.

TOBACCO is a very general produce in the northern and weſtern provinces: It requires as rich a ſoil as opium, and an equal ſhare of manure; and therefore it is moſt frequently raiſed on the rich ſpots interſperſed among the dwellings of the peaſantry. It has been calculated that this article may be raiſed, ſhipped, and carried to market, at the low price of two rupees a maund, or about thirteen pounds ſterling per ton. In every diſtrict where tobacco is raiſed, it requires a laborious cultivation, but more particularly in the ſouthern diſtricts where the ground is *made* for it. Tranſplanting is neceſſary, one or two weedings, and one hoeing with the hand; during the growth of the plant it is frequently viſited by the labourer, to break off the heads of the ſtalk, and to pick the decayed leaves. When gathered, it is dried by being ſuſpended on beds of withered graſs, by means of ropes; but in this proceſs it muſt be ſheltered from the exceſſive heat of the ſun, and from the dews of the night.

BETWEEN 16 and twenty mauns of tobacco is reckoned a medium produce from three biggahs, which yields a conſiderable profit to the grower, though valued only at a rupee each maun. In theſe provinces a ſufficient number of hands, and perhaps a ſufficient quantity of land could be afforded for the ſupply of the whole market of Europe. Some attempts have been made to export it thither; but it is conceived that the ſpecies cultivated here is too weak

to

to ſuit that market. From what I have obſerved with regard to the flavour and ſtrength of other vegetables produced in this climate, I ſhould conclude the Bengal tobacco to be weaker, though of the ſame ſpecies; but admitting that the article could be produced of the ſame quality, and prepared to fill the Europe market, it is probable a leſs produce would be drawn at an average from the acre, becauſe a greater extent of cultivation ſuppoſes an inferiority of ſoil, ſince the choice land is already occupied.

The known enterpriſe of Europeans would however probably more than counteract every adverſe circumſtance, whether ariſing from the ſoil or the diſtance of the carriage. The effect of large capitals inveſted in the trade, would go to reduce the original coſt, which has hitherto been enhanced by the number of intermediate dealers on ſmall ſtock.

In the Indigo branch, European capital and enterpriſe has already been attended with this conſequence. This dye, from its name, (Indicum appears to have been known in the country from the earlieſt times; and till ſupplanted by the American produce actually ſupplied the European market. The capital of Europeans, and their ſkill, has again extended the exportation perhaps beyond its antient limits, certainly beyond the former quantity.

It

It is not from raiſing ſmall parcels on a few biggahs of ground, that competent ſkill or economy of labour can be acquired. Yet this has been invariably the management of natives in the culture of tobacco and indigo. In the latter ſome improvements indiſputably valuable, have lately been made, particularly in the ſeaſons of ſowing, and the number of crops; in drying the ſtuff by artificial heat; in contriving a proceſs to prevent injury by worms; and in the ſuperior fineneſs of the article.

By theſe means, from being an inconſiderable produce, the indigo has become an object of great importance; and it is probable that the ſame enterpriſe, were it applied to the culture of tobacco, and other articles, would be rewarded with ſimilar ſucceſs. The docility of the natives, their poverty, and want of ambition, though adverſe to them as proprietors of works, on their own account, qualify them for ſervants to Europeans. Employment under them for a certain monthly hire would prove a vaſt melioration of the condition of thouſands in India, and add to the trade and comfort of the country.

They who have a ſyſtem to maintain, muſt defend it at all hazards; it is for them to rail againſt monopolies, and reprobate all connection with Aſia; but an unprejudiced perſon who has reſided any time

time in the country muſt have diſcovered an infinite number of advantages which European intercourſe has produced, and which it muſt continue to produce. The ingenious arguments of Dr. Smith upon this ſubject, are pleaſing in a ſyſtem of commercial freedom; but are in many inſtances inapplicable to human affairs.

SALTPETRE

## SALTPETRE AND OTHER ARTICLES PRODUCED IN THE DISTRICT.

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*Benares,* 1798.

You muſt frequently have heard mentioned the common proceſs by which ſalipetre is obtained from earth impregnated with its particles. It is reproduced in the ſame earth in the courſe of two years, when the proceſs may again be repeated with equal ſucceſs. In the ſecond proceſs a ſmall portion of freſh earth muſt be added, to prevent the nitre from running into too ſmall chryſtals. The tracts parched by the hot winds, form a boundary to which this manufacture is limited; and it has been obſerved that during theſe winds the production of nitre is the moſt abundant. It has been ſuppoſed, that as the hot winds have lately, in the change of ſeaſons, extended their influence into the province of Bengal,

the manufacture might ſucceed in the lower diſtricts.

SALTPETRE is at preſent manufactured in Behar, and the provinces weſt of it, to the annual amount of 200,000 mauns. The price to the India Company, who export the far greateſt part of it, is about two rupees per maun. The reſt paying duty and carriage, with profits to intermediate dealers, riſes to double the above price. The trade during the preſent war, has been prohibited to private dealers and foreigners.

THESE provinces have been found to produce this article at one third leſs expence than it can be furniſhed in Europe, and muſt therefore be able to command the markets there, in the event of a fair competition. The very nature of the article ſuppoſes the neceſſity of every government maintaining eſtabliſhments for its manufacture. A monopoly of it in the hands of one nation would lead to conſequences highly intereſting to every other. Notwithſtanding this circumſtance, the far greater part of the demand of Europe will be ſupplied from this quarter ſo ſoon as trade is permitted to run in its natural channel, by being more fully underſtood. There has appeared a calculation tending to prove that ſaltpetre may be imported from Bengal to Europe at 25l. per ton, whereas that manufactured in Spain coſts from 90l. to 100l. ſterling.

It is probable that the importance of theſe provinces has never yet been fully diſcerned, nor their value felt. Time, and more liberal ideas of commerce, will diſcover other branches of trade which India may advantageouſly carry on with Europe. We are at preſent indebted to Portugal for the annual ſupply of raw hides, to the amount of nearly a million *; an equal quantity might be furniſhed by Bengal on terms perhaps equally advantageous.

We have already mentioned the buffalo as an object of natural hiſtory, and an inſtrument of rural labour; but that animal is ſtill more valuable as affording an article of commerce. The black cattle of theſe provinces, including the buffalo, have been eſtimated at 200,000,000; taking the number at one tenth part of this eſtimate, a ſupply equal to that of Brazil might eaſily be obtained. This has been reckoned 120,000 annually, a number probably much inferior to the caſualties of this part of India, where the currier ſeldom thinks it worth his trouble to ſkin any animal dying a natural death. A cow-hide, after tanning, coſts eight anas; that of a buffalo being larger, may bring ten or twelve. At two rupees each, hides tanned in the beſt manner which is known here, might be ſhipped for Europe; perhaps they may be furniſhed at a ſtill cheaper rate.

From

* Vide Remarks, &c. p. 145.

FROM Hurdevar to Cape Comorin the Britiſh nation poſſeſſes either dominion or influence; and this vaſt tract of country which contains almoſt every ſoil and climate, will probably be found capable of producing every article hitherto deemed peculiar to China or America. It is certainly a wide and untried field for experiment, of which in all human probability the indolent and unambitious natives would never have availed themſelves. That they have fallen under the guidance and dominion of a more enterpriſing people, may perhaps be one of thoſe deſtinations of Providence of which, as we are incapable of foreſeeing the conſequences, we muſt be unfit to appreciate the wiſdom. However this may be, the concluſion is fair, until experience contradict it; that as India has been found to contain birds, animals, inſects, and plants ſimilar to thoſe of other countries in the ſame latitudes, it muſt poſſeſs every eſſential requiſite for ſimilar productions to exerciſe the induſtry of the manufacturer, or to reward the labour of the poor.

A Gentleman, equally diſtinguiſhed for his humanity, as he is by an extenſive knowledge of the ſituation of India, ſtates, "that no public proviſion exiſts in our provinces to relieve the wants of the poor and helpleſs. The only employment in which widows and female orphans, incapacitated from field labour by ſickneſs, or by their rank can earn a ſubſiſtence, is by ſpinning: and this is the only employment to which the female part of a family can apply

ply, to maintain the men, ſhould they be diſqualified for labour by infirmity or otherwiſe. To all it is a reſource, which when not abſolutely neceſſary to their ſubſiſtence, contributes at leaſt to relieve the diſtreſſes of the poor. Theſe diſtreſſes are great, and of none greater than of the many decayed families who once enjoyed the comforts of life. Theſe are numerous in India, and whether entitled to the conſideration of Government or not, they have certainly a claim on their humanity."

SUCH conſiderations have ſuggeſted various employments to this benevolent writer, which might contribute to their relief, while they added to the commerce and proſperity of the country. He propoſes cotton yarn, which could be imported into England from Bengal cheaper than cotton wool. He alleges that linen and woollen yarn are imported from Ireland to the large amount of 330,000 pounds annually; and contends that if no injury be ſuſtained by the manufactures of Britain from this circumſtance, they would be equally uninjured by the importation of cotton yarns from Bengal. This reaſoning he applies to cotton wool, ſilk in the cocoon, and filature and wound ſilk.

DIFFERENT ſpecies of wood for the dyer, and the cabinet-maker, are alſo recommended inſtead of that employed in dunnage. The gums, and vegetable oils with which England is ſupplied from foreign countries, are the product of theſe provinces; and the

the exportation, he argues, would reward the induſtry of the native inhabitants : tincal, borax, ſal ammoniac, and various other articles might be procured in this country; but probably not on equal terms: and as often as this happens the operations of the manufacturer, and the ſpeculations of the merchant will be guided, not by the wiſhes of the benevolent, but by their own views of private advantage.

THE man who begins a new branch of manufacture, and carries it on with perſeverance, is the moſt uſeful member of a community. His money circulates among the laborious poor, and is more beneficially beſtowed than if the ſame ſums were beſtowed in charity upon the indolent. Such enterpriſes, however, are in general undertaken from views of private and individual emolument: and to ſtimulate to ſuch exertions it is neceſſary firſt to prove that they are likely to be lucrative. If by any means the number of private adventurers to India be increaſed, there can remain no doubt of their enterpriſe or emulation: an exceſs of theſe qualities has often been their fault, and the puniſhment of it their ruin. The Indigo trade affords too many proofs of this fact; nor is there any buſineſs in the hands of Europeans that does not illuſtrate the truth of it. That ſpirit which induces a man to combat every ſentiment of affection, whether for his country or his friends, and prompts him to abandon them with ſo much perſonal

perſonal riſk, is a full ſecurity for the enterpriſe of almoſt every trader in India.

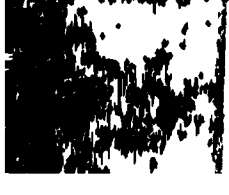
THIS character of the Britiſh merchants is conſpicuous in Calcutta; and it affords a ſtrong preſumption, that trading in the various articles above enumerated, holds out no proſpect of advantage; otherwiſe it would have attracted the notice of ſo diſcerning a body of men: nor is it to be urged that politicians, or embarraſſing regulations have prevented this. The ingenuity of merchants has found means of evading or ſurmounting almoſt every regulation that militated againſt their intereſt.

OF

*Chunar, March* 1798.

THIS and the ſubſequent month conſtitute the harveſt ſeaſon in thoſe diſtricts where wheat and barley are the prevailing crops, and where from this elevation the inundations of the Ganges do not convey moiſture or fertility for the production of rice.

OF the various mixture which has grown on the ſame field, flax and muſtard are the firſt ripe. Theſe are both deſtined for oil; and when pulled and trode out, the ſeed is ſecured in baſkets, till a convenient period for bruiſing it arrives. The treading out is performed in the open field, on a ſmooth ſpot, that has been levelled and prepared for the purpoſe, ſo that the ſeed and chaff can be ſwept up as eaſily as from a barn floor.



ON

On ſome fields the barley and flax are reaped together; or are pulled up by the roots if the crop prove too ſhort for the ſickle. More frequently, however, the flax and muſtard according as they ripen, are gleaned from the other grains. In the ſame manner the flowers are picked from the yellow dye, and dried for preſervation: thus by collecting the different crops as they ripen, the wheat or barley which remains, is greatly injured by being ſucceſſively trampled in theſe different operations. The practice of multifarious crops, if cenſurable with you who reap all ſorts at once, muſt prove much more objectionable where ſo much pernicious waſte is occaſioned by the feet of the reapers.

The harveſting of the natives, like all their other labours, diſplays much more buſtle than diſpatch: you may perceive ſome hundreds ſtraggling through a field without any method or regularity. Some pick the flower of the dye; others cut flax; ſome gather muſtard, while ſeveral are collecting into bunches what is reaped, and carrying them to the threſhing floor. A Company of reapers with you are ſo ſtationed at their labour, that you can judge eaſily both of the quantity performed by each workman, and the manner in which he executes it. Among them emulation ſtimulates to exertion and cheerfulneſs: here every one ſaunters through the field as he pleaſes, and no one performs nearly one half of the work that might be diſpatched by a more judicious diſtribution.

A Hindoo reaper turning out to his work, ſcarcely recals to your mind the image of a European labourer; while his head is wrapt up in a profuſion of dirty cloth, the reſt of his body is almoſt naked; and the cold of the mornings at this ſeaſon makes his limbs ſhake more like a perſon about to fall down in an ague than a reaper going to perform a day's labour. In one hand he carries a very ſmall hook, in the other rope, with which he carries home all that he cuts during the day.

The uſe of cattle in carrying the crop is ſeldom practiſed; nor is to be aſcribed altogether to the badneſs of the roads, for at this ſeaſon the ſoil is every where dry and firm, but to the ſmall quantity cut down, which is frequently not more than the reaper can carry. Thraſhing being often performed in the field, the ſtraw becomes ſtill more eaſily conveyed from the diminution of weight. On the field the wheat, barley, and flax are much higher than they are in England; while the Palma Chriſti, the Indian corn, and the Badjera †, are far more bulky than any produce of Engliſh huſbandry. They riſe from eight to twelve feet in height, and are often ſo thick that they are impervious to the air. The ſugar alſo grows pretty tall; and from its great cloſeneſs muſt ſtagnate the air: ſo that did not experience contradict it, you would conclude that it enriched rather than

† A kind of millet.

than impoveriſhed the ſoil. The leafy and leguminous plants do not uniformly enrich the land upon which they are raiſed; ſome of them as tobacco, draw ſo much nouriſhment, that ſtagnated air cannot ſupply the waſte. Tobacco land, as well as ſugar fields, muſt therefore be invigorated with manure.

MUCH of the wheat and barley here, as well as of the rice, is loſt by over ripeneſs. The labour of harveſting ſo many crops, all coming forward nearly at the ſame time, is too much for the farmer to overtake. Some kinds, like the flowers of the yellow dye, muſt be picked for ſeveral weeks at intervals, from the ſucceſſion of flowers coming forward gradually. The barley, therefore, which is a common mixture with this crop is not only repeatedly trodden, but often drops before the labourer can afford time for cutting it down.

NEITHER the different fields, nor the ſeparate poſſeſſions of Ryuts, are parted by hedges as they are in England; but here ſhelter is leſs neceſſary, as the extraordinary height to which ſome of the crops riſe yields ſufficient ſhelter to all in their vicinity. The paſture lands being generally in a barren or waſte ſtate, and lying at a diſtance, dykes become unneceſſary for their defence. Should, however, the country become completely occupied, or huſbandry carried on with greater vigour, fences and incloſures would be found as neceſſary as they are in Britain, and an equally valuable acquiſition in huſbandry.

Artificial

Artificial graſſes could never be preſerved without fences; nor has the ſubſtitution of a herdſman on clay ſoils ever anſwered the end of protecting them. By treſpaſſing for a few hours, the feet of black cattle have been found entirely to ruin a field of ſown graſſes.

HERDING of ſheep, cattle, and goats, is common not only in Behar, but over all India; and there is reaſon to believe that a more certain criterion cannot be afforded of imperfect huſbandry; for without reſt, paſturing cattle never thrive. Here, where the paſtures are common to a whole village, each tenant ſeems to put to it as many cattle as he chooſes. The land is overſtocked; the cattle ſtarved; and inſtead of a greater profit, the wretched peaſant does not reap the half of the benefit that a third part of his ſtock, properly fed, would yield. Examples of this wretched management are two frequently under your obſervation to require any comments from me upon the ſubject. Here, however, the ſyſtem is beyond all meaſure more pernicious, from the length to which it is carried. I have met a drove of ſome hundred cattle coming in from this wretched paſture, not one of which would have weighed againſt your beſt ſheep. The black cattle and the hogs are barely kept alive; the hogs and ſheep on a ſhort paſture make a better ſubſiſtence, but are never fattened unleſs at the ſtall.

DURING

During the dry ſeaſon, and more particularly the prevailing of the hot winds, every thing like verdure diſappears; ſo that on examining a herd of cattle, and their paſture, you are not ſo much ſurpriſed at their leanneſs, as that they are alive. The graſs cutters, a claſs of ſervants kept by Europeans for procuring food for their horſes, will bring provender from a field where graſs is hardly viſible. They uſe a ſharp inſtrument, like a trowel, with which they cut the roots below the ſurface. Theſe roots, when cleared of earth by waſhing, afford the only green food which it is here poſſible to procure.

Of the artificial graſſes, none have ever been attempted ſo far up the country as the place from which I now write. The hot winds would in all probability not only ſcorch the portion expoſed above ground, but would penetrate ſo far into the earth as would probably prevent them from ſhooting up in the ſucceeding rains. With regard to the raiſing of turnips, cabbages, carrots, and greens, experiments ſufficiently deciſive have annually been made in the gardens of Europeans. Here theſe articles are all raiſed during the cold months, but no art can preſerve them againſt the deadly influence of the hot winds: though in each garden a ſupply of water is daily drawn by two bullocks, theſe vegetables are now languiſhing, and before the end of the preſent month they will periſh in ſpite of every effort to preſerve them.

All the different particulars which have hitherto been occaſionally noticed, will not enable you to form a juſt eſtimate of Hindoo agriculture, unleſs the practical effects of their numerous prejudices are taken into account. One which I have not yet mentioned, operates very prejudicially; it is the unfair competition eſtabliſhed between the Ryuts of different caſts. A perſon of the rank of Brahmin obtains not only his lease on eaſier terms, but has ſeveral exemptions, to which his inferiors are expoſed. A Ryut of the other claſſes is ſtill more favoured than the Chumars, though not on a footing with the Brahmin: a perſon of the latter caſt has an ingenious method of enforcing payment of a debt, or indeed of any claim which could not be practiſed among a people leſs enſlaved by the prieſthood. He places himſelf before the door of the unhappy debtor, and vows never to leave it till he obtains his demand. Should this not produce the effect, he threatens to ſtarve himſelf to death before his door; and ſuch is their terror for this conſequence, which would excommunicate the moſt conſiderable family, and forever ruin it, that no demand is ever refuſed, even though unjuſt.

The perſon before whoſe door a Brahmin had ſtarved, would be regarded as the moſt infamous and abandoned of men; and as ſuch could expect no countenance from ſociety. In the exaction of rent from perſons of higher caſt much more lenity and indulgence is ſhewn, than to the lower orders. Thus the

the Hindoos ſuffer all the evils reſulting from an unequal ſtate of ſociety, without participating in almoſt any of its avantages. In Europe, the ſpeculative, the opulent, and even the idle, either add to the conveniences, the amuſement, or the elegance of ſociety. Here the indolent Brahmin miniſters to neither: his knowledge does not enable him in one individual of a thouſand, to inſtruct ſociety either as an author or a teacher: above the rank of a labourer his induſtry is not only deſtroyed, but his indolence becomes pernicious as an example; while the ſplenetic habits of the religioniſt prevent him from mixing in ſociety, or contributing to its luſtre or elegance.

The prejudices entertained againſt many kinds of wholeſome food, which are nouriſhed and upheld by the precepts and example of this order, we have already noticed, injuring agriculture in ſome important particulars, and preventing the whole people from purſuing ſeveral of the moſt approved branches of rural economy. The number of holidays which frequently interrupt rural labour, are at ſome ſeaſons particularly inconvenient; while the conſtant practice of every individual going to the river to bathe and carry water, is a ſerious encroachment upon harveſt labour, which a more accommodating ſyſtem would have avoided.

To theſe conſiderations we muſt alſo add the mean and imperfect implements employed in every department of huſbandry; the inferiority of their working cattle,

cattle, and deficiency of roads, and every adequate means of land carriage: these are circumſtances which whether regarded as the cauſes or conſequences of imperfect huſbandry, are certain proofs of its backward and unpromiſing ſtate. Such, however, are the circumſtances and actual condition of a people who are frequently repreſented to Europeans as in a very high degree of improvement in all the arts, and as having carried many to the *ne plus ultra* of perfection.

PARTICULAR

## PARTICULAR BRANCHES OF RURAL ECONOMY IN THE DISTRICT.

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*Benares*, 1797.

THE internal commerce of Bengal is carried on, as we have ſeen, chiefly by craft on the different branches of the great river; ſome part of it is alſo conveyed by land carriage, from the different places where produce is manufactured, to the banks of thoſe rivers, or to market In both caſes the carriers are merchants, who do not often hire their carriage, but purchaſe at one place what they ſell at another.

We have yet but little account of the (dandies) boatmen; when employed by the natives they receive little more than their food, which is furniſhed commonly in grain, with a ſmall allowance of money for the purchaſe of ſalt, tobacco, and a little cloathing.

THE rate of freight charged by the owners of theſe veſſels is ſo much per maun of their burden: eſtimated at three rupees per hundred maun, when carried an hundred miles *. When the boats are employed by the owners on their own account it is believed that they tranſport goods at a much ſmaller expence. The average rate of travelling with, and againſt the current, may be reckoned twenty-five miles; hence a ton is carried for that diſtance for leſs than ſixpence of our money.

THE land carriage is managed with an equal degree of economy. It is moſt commonly performed by oxen; ſometimes by the ſmall horſes of the country, and occaſionally by buffaloes. The latter animals, though ſtronger, and more docile than oxen, are leſs eaſily maintained. The carrier allows his cattle no grain, ſeldom even ſtraw; the gleanings occaſionally made on the road-ſides are the whole ſupport of the oxen, a fare too ſlender and precarious for the buffalo.

THE tear and wear of cattle ‡, and the ſubſiſtence of one driver to four oxen, is all the poſitive expence of land carriage; which at a medium has been eſtimated at half an ana per day for one maund. The uſe

* Vide Remarks on the Agriculture and Commerce, &c.

‡ The price of a carrier's beſt oxen is about eight rupees, [illegible]en is from four to ſix maunds.

uſe of carts were it practicable, would greatly increaſe the facility of land carriage. But except in the neighbourhood of military ſtations there are no roads in this part of India. The country affords no ſubſtantial materials for their conſtruction; and thoſe magnificent cawſeways which facilitated intercourſe under the native princes, are hardly diſcernible.

FROM ſuch inſtruments of conveyance you may conclude, that the internal commerce of this country, notwithſtanding its natural advantages is in a languid ſtate. In fact, the exportation of grain from corn countries, and the importation of ſalt, conſtitute the principal part of this commerce. The importation of cotton from the weſtern provinces, and the exchange of tobacco, and beetle nut, form almoſt the whole ſupply of internal conſumption. Piece goods, ſilk, ſaltpetre, opium, ſugar, and indigo paſs almoſt entirely through the hands of the Company.

THE internal duties which form the baſis of an eſtimation of the commerce, have been aboliſhed. From their former amount of eight per cent. on the real value, the whole annual amount of internal commerce, excluding the Company's inveſtment, has been eſtimated at three millions and a half; of which one paſſes through the hands of the Company by the monopoly of ſalt. The internal conveyance of grain is conducted entirely by the natives; this alone has been ſtated at two millions, excluſive of that ſupplied to towns by their immediate vicinity.

DURING

During a ſhort excurſion in the vicinity of this city, I have had an opportunity of examining the ſtate of the wheat and barley crops, which are nearly ripe. They are inferior to the ſame crops in Britain, and particularly in length. The barley, or rather big, for it is all of that inferior ſpecies, does not exceed twelve or fourteen inches in height; but where the land is in good order it is a cloſe crop, and yields plump grain. The wheat is bearded, and would pleaſe you worſe than the barley; it never riſes above the height of two feet, and would in England be reckoned a light crop. The prepoſterous cuſtom of mixing the yellow dye with the white corn, hurts the eye of a farmer, and occaſions the one crop much injury by reaping the other, independent of the miſchief of crowding the grain.

Sugar is a frequent produce in this diſtrict, which is reckoned one of the richeſt in India. I have had occaſion to admire the ſimple apparatus employed by the natives in expreſſing the ſugar, and boiling it. A ſtone mortar, and wooden piſtern, turned by two ſmall bullocks, the whole not worth twelve rupees, conſtitutes the expence of the operation. The pots uſed for boiling are of the common earthen ware, every where made here. By a judicious mode of placing theſe under ground, and introducing the heat by a draught of air, like that in a furnace, a ſmall quantity of fuel is ſufficient.

Here

HERE as well as in the Weſt Indies, the ſugar harveſt is a buſy but joyous ſeaſon. The native labourers grow plump and well conditioned on the offals and little perquiſites about a ſugar work. All the different operations of cutting, grinding, and boiling, are carried on at the ſame time, which occaſions a buſtle on the farm rather exhilarating than oppreſſive. It is ſuch a ſcene as your ſtout reapers exhibit, when they ſee before them the cloſe of a harveſt labour, or when bringing the laſt ſheaves into the barn-yard.

AFTER the tragical, and too pathetic deſcriptions which we read of the late peculations and oppreſſions of Benares, I was happily diſappointed, when I ſaw the ſubject before me, unvarniſhed by rhetorical art, but richly covered with natural luxuriance, or with the produce of rural labour.

THE numerous groves, (Topes in the language of the country), give the whole province the appearance of a foreſt; and afford an agreeable ſhelter to cattle, and a retreat to the traveller from the noon day heat. It is deemed a moſt meritorious act, in the eye of religion, as well as a civil duty, to plant a tope of mangoes. The fruit is rich, and nutritive; and affords one happy, but rare example of the coincidence of Hindoo prejudice with the dictates of morality, and the emolument of the peaſantry.

THE trees when planted, belong often to the planter, and not to the proprietor of the ſoil; the former pays the latter a certain proportion of the fruit as a ground rent I had here an opportunity of ſeeing the eſtate of a Zemindar, who, though owner of the land, was not entitled to the fruit of the Topes; nor was the tenant an European to whom he had let a great part of his property. The complicated proprietory right was in this inſtance ſhared by four parties; government, the zemindar, the European tenant, and the planter of the mango trees: If to theſe you add the vague and unſubſtantial intereſts of the Subah, and Emperor of Hindoſtan, you will have ſome idea of that chain, whoſe links conſtitute the different bonds by which property is held in India.

ON the eſtate of this Zemindar, too, I viſited a ſmall, and almoſt inacceſſible mount, which had lately been conferred on a devotee. The whole was planted with fruit trees and vegetables, among which this holy perſon lived, without the cover of an houſe, and performed the rigid farces of aſcetic devotion before the multitude. While this devotee pretended to renounce all the concerns of this material world, and its groſs allurements, it was plainly obſervable, that he had found opportunity of ſnatching a glance at his neighbour's farm, ſeveral ſhreds of which he had actually appropriated to himſelf, by gradually extending, during night, the limits of a paltry hedge. Zeal operates in every direction; yet active as it is, it cannot always counteract the movements of ca nal

appetite,

OF THE BOMBAY BRANCH OF THE

appetite, or check the growth of our ſelfiſh affections. Nor have the good Fakeers, who have undertaken to lead men to heaven, by the force of holy example, been always able to defend themſelves from the inroads of theſe paſſions. Happy were it for mankind, did this conſecrated mount at Benares, alone diſplay an example of the imperfection of piety, or were it the only monument of the inſtability of human virtue; but alas! it is whiſpered even here, that the Fakeers, the moſt ſacred portion of a religious people, frequently apply for medical aſſiſtance in a dneaſe which is ſeldom contracted but in the triumphs of incontinence over the frailty of nature; and that amidſt all the ſeeming mortification and auſterity of their lives, and the ſacred vows by which they are bound, theſe religioniſts too frequently diſplay the paſſions of the man riſing upon the ruins of the ſaint.

OF

## OF THE SALT MANUFACTURE, AND COLLECTION OF REVENUE.

*Chunar, Feb.* 1797.

THE labours of the Hindoo are certainly not more oppreſſive in general, than thoſe of the European. The toil of the Molungées, (ſalt makers), however, is an exception; for it is, both in its nature and duration, the moſt pernicious and ſlaviſh employment in this, or perhaps in any country.

"A large proportion of the ſalt made in Bengal is manufactured in deſarts, overflowed every tide by the ſea; and the climate of theſe deſarts is inimical to every conſtitution *". All the complaints occaſioned by heat and moiſture, appear there in their moſt

* Vide remarks on the agriculture and commerce of Bengal.

moſt malignant form: Dyſenteries at one ſeaſon, are peculiarly fatal The unhappy victims of this diſorder are avoided as infectious by their companions, and ſuffered to pine without receiving either that aid or conſolation, which compaſſion uſually pays to the wretched. The progreſs of the diſorder, in ſuch circumſtances, leads to certain death, if that event be not anticipated by the tigers and alligators, by which theſe dreary waſtes are infeſted.

THE tigers, accuſtomed to human blood, boldly attack the ſalters; while the alligators are always ready to aſſail each unfortunate individual who may ſtray from his companions.

THESE are not the only evils to which the Molungees are expoſed: their unhealthy and dangerous employment carries them to a diſtance from their families, where their proviſion, and even water is ſupplied by a long carriage. From choice, therefore, a native will not engage as a ſalter; and this circumſtance occaſions a ſpecies of ſlavery to be eſtabliſhed in this manufacture in many countries, which with you remained till very lately, but which here has yet received neither remedy nor alleviation. Whoever has once laboured at the ſalt works, is bound himſelf and his poſterity forever to continue in that occupation.

FROM the great mortality incident to their employment, the ſalters do not keep up their members, but

the annual waſte, like that of the ſlaves in the Weſt Indies, is continually ſupplied by unjuſtifiable artifices, in procuring freſh recruits.

LABOURERS are either decoyed to theſe works by falſe repreſentations, or they are compelled, on alledged proof of their profeſſion, to engage in them. This proof, it is ſaid, frequently conſiſts of perjured evidence, which is here never difficult to attain; or is ſupported by the *ordeal*, that mock evidence which characteriſes a barbarous ſyſtem of juriſprudence.

THE ſalt revenue is ſo conſiderable, that the trade cannot be laid aſide, nor can an article of living ſo neceſſary be abandoned. Several improvements have been ſuggeſted to render the proceſs leſs prejudicial to the workmen. It has been propoſed to manufacture ſalt in leſs unhealthy ſituations, or to import it from the Coromandel coaſt. A duty has been propoſed, inſtead of the monopoly in the hands of the Company.

THE annual ſales have amounted to one million ſterling; and the neat revenue after deducting charges, has been ſo conſiderable, that no adequate compenſation for ſo important a ſacrifice can eaſily be found. Hence the unfortunate Molungees continue in the moſt wretched of all ſlavery.

THE ſalt agents employed by Government, cannot juſtly be charged with the ſufferings of theſe people, ariſing

ariſing from the local ſituation, or the malignity of the climate. They are not, perhaps, chargeable with the methods practiſed in procuring the devoted individuals to engage in theſe works. The neceſſity of having them ſupplied, has however been ſuppoſed to render them negligent in ſcrutinizing the means made uſe of for that purpoſe: What we would conceal from ourſelves, or what we wiſh not to know, we muſt always be little inquiſitive to learn.

THE expected free revenue ariſing from the ſale of ſalt, is ſaid to be no more than forty-two lacks: ſome have argued that this revenue might be made good by impoſing a duty on the article of one rupee each maun; and contend, that the increaſed conſumption, on lowering its price, would render this ſum perfectly efficient.

A different arrangement in the ſalt trade is, perhaps deſirable in another view: The high price of the article has compelled the poor to a more ſparing uſe of it, than appetite dictates, or health requires. The quantity they employ is certainly ſmall, and were ſalt a luxury, and not a neceſſary of life, you would deſire to ſee them more amply ſupplied.

THE charges and advances upon the ſalt manufacture, are ſtated at thirty-nine thouſand pounds, or nearly forty per cent. on the whole amount of the ſales. The number of workmen employed, the ſmall quantity of labour performed under the immediate inſpection

inſpection of native ſuperintendants, occaſions a very heavy expenditure. The expence of the collection of every deſcription of revenue here, is certainly large, and the number of ſubordinate officers is beyond all proportion greater than with you. It is probable that ſome laxity in the management takes place, as very large fortunes have been frequently amaſſed by individuals in the revenue department, while no claſs of men are more laviſh in their expenditure.

THE groſs rent paid the landholder in Bengal, is by a competent judge * ſtated at above five crore, and ninety four lacks; while the charges of collection, at forty per cent. amount to two crore, thirty-ſeven lacks: Hence the landholder can only realiſe three crore, fifty-ſeven lacks, nearly.

EVERY Mawza, or village, requires a Putwary, (officer of accounts). The whole number of Mawzas in theſe provinces, amounts to one hundred and eight thouſand; of which ſome at preſent are waſte, and contain ſeveral villages. The regulation is not ſo ſtrictly complied with as to appoint an officer of accounts to every village; one to three is probably the real proportion. One officer for meſſages, and ſuch ſervice, called a *gorait*, is alſo neceſſary to every Mawza: two rupees each month, is the ſmalleſt ſubſiſtence

* Author of Remarks, &c.

ſubſiſtence that can be aſſigned to the gorait; and ſeven rupees is a very moderate ſalary for each officer of accounts. At theſe rates, however, ſixty thouſand putwarys, and thrice that number of meſſengers, require a ſalary of ninety-three lacks and ſixty thouſand rupees.

BETWEEN the firſt collection at the villages, at the principal diviſions of diſtricts, other charges are incurred; without bringing theſe into account, new ſums are required for pergunnah charges; or thoſe expences incurred at larger diſtricts. According to the inſtitutions of Acber, the number of pergunnahs was upwards of nine hundred. In the preſent arrangement this diviſion is not exactly followed; ſome pergunnahs being divided, and others conſolidated; but the actual number is believed to be nearly the ſame.

FOR each of theſe pergunnahs a number of accountants, regiſters, ſecretaries, guards, and peons are required, and their preſent allowances, in ſalaries, fees, and perquiſites, has on a moderate computation, been eſtimated at five hundred rupees per month. Nine hundred diſtricts, at this monthly charge, require an annual eſtabliſhed expenditure of fifty-four thouſand rupees. If to theſe ſums you add other incidental charges incurred between the landholder and tenant, two crore thirty-ſeven lacks for the expences of collection, will be fully accounted for.

AFTER

AFTER this heavy deduction, there remains, as we have ſtated, nearly three crores fifty-ſeven lacks to the landholder; but agreeably to the permanent ſettlement only one tenth part of this ſum is left for his own income, the other nine conſtitute his aſſeſſment to Government. In this country, therefore, the Government, according to your ideas, will appear the proprietor rather than the Zemindar. The intereſt of the former being equally permanent, and far more ſubſtantial than that of the latter. When the zemindary is extenſive, the landholder does not appropriate even the tenth part of the groſs rents. In ſuch a ſituation, he appears like a ſuperintendant of a numerous train of ſubordinate collectors, for every one of whom he is reſponſible.

MANY of the properties in Bengal are ſmall; on theſe a calculation has been made to admit of a larger ſhare to the proprietor; becauſe in ſuch inſtances a tenth of the groſs payments would have proved totally inadequate for his ſupport. "The particular ſanction of Government for ſuch calculations was ſeldom neceſſary; becauſe moſt of the ſmall properties were held upon tenures which furniſhed their own ſtandard for the ſettlement †."

SUCH

† Vide Remarks, &c.

SUCH is the ſtupendous and complex ſyſtem adopted for collecting the revenue of India, without taking into account the number of civil ſervants appointed to this duty by the Company, who form a ſuperior claſs of revenue officers, receiving individually far greater emoluments than any of the others already noticed.

THIS ſyſtem to you muſt appear awkward and expenſive, from the exceſſive number of agents employed; but here it is, perhaps, in a great meaſure unavoidable, from the extent of the country, the number of villages, and the ſmall ſums contributed by each. A ſingle manufactory with you contributes more to Government, than perhaps a whole pergunnah in India. One large ſea port may have its duties collected by a number of officers comparatively ſmall, while in levying an equal ſum here, you muſt maintain an eſtabliſhment ſufficient for a whole province.

THE want of activity among the native writers and accountants, tends alſo to increaſe their number. In ſome private families you will ſee three or four writers employed merely on family accounts, which in Europe the maſter of it would eaſily adjuſt with equal accuracy, by devoting only a few hours in the week.

BUT

But as often as natives are employed, you have apparent application to buſineſs, with little progreſs; buſtle with little diſpatch; and numerous agents without much execution.

OF

## OF THE DISTRIBUTION OF PROPERTY IN LAND.

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*Chinſurah, March* 1800.

If large eſtates in the poſſeſſion of individuals are pernicious to the general intereſt of agriculture, too ſmall a diſtribution of land is ſtill more injurious; and Bengal has had the ſingular infelicity of ſuffering at once both theſe evils. One ſubſtantial improvement, therefore, is the diſmemberment of large properties; while in thoſe inſtances regulations which encourage the ſubdiviſion of landed eſtates among heirs, according to the common laws of inheritance, are ſalutary in their operation.

There are over Bengal a vaſt number of ſubordinate proprietors, who are ſuppoſed to have had their origin in the hereditary nature of the different officers in the collection of revenue under the Ze-

mindar. In ſome parts theſe ſmall properties have ariſen from an extenſion of the right of occupancy, from vague permanency to a hereditary and transferable intereſt. They are called *Talooks*, and all pay a fixed quit rent, for a portion of land heritable in the family, and transferable by the common rules of law; though in ſome inſtances the right of alienation was not recognized.

THESE eſtates, originally ſmall, ſoon were ſubdivided by the operation of the Hindoo and Mahommedan law relating to inheritance. The former divides property into equal ſhares among heirs of the ſame degree, but excludes females, who ſucceed only in failure of male heirs: The Mahommedan code aſſigns to ſeveral relations their ſpecific portions as allotted by the Crown; and divides the remainder of the inheritance in equal ſhares to all males of the ſame degree, and half their portion to females of the ſame degree of conſanguinity §. Thus a vaſt number of properties were ſplit into portions ſo ſmall, that the Talookdars in ſome inſtances ſtand aſſeſſed in the revenue books only at a few pence. Yet theſe petty proprietors continue attached to their poſſeſſions, limiting their induſtry to a paltry ſpot incapable of yielding them a ſubſiſtence, much leſs of ſupporting a genteel indolence, which many attempt, in imitation of their anceſtors, on a divided patrimony.

§ Vide remarks on the agriculture, &c.

mony. The idle indigence of theſe ſmall proprietors, exhibits agriculture in its worſt ſtate. Their poverty prevents every improvement; the property though cultivated to the utmoſt, is often inadequate to the ſupport of a family.

FROM the unambitious, and indolent diſpoſition of the natives, this ſtate of property becomes peculiarly pernicious: Satisfied with the produce of his field, if it ſupport life at any rate, he will neither apply to any other occupation, nor cultivate more land. If the property is let to a tenant, he is ſtrained to the utmoſt to ſupply the wants of a neceſſitous landlord; and his own proverty acts as a bar to all ſpirited cultivation. The tenants of theſe ſmall properties are comparatively wretched, and their farms in bad condition. Mr. Young gives a ſimilar account of the ſtate of property in ſome parts of France.

THIS ſtate of landed property exhibits the great body of people in ſo depreſſed circumſtances, that they can procure nothing but the mere neceſſaries of life. A wealthy peaſantry, and well paid labourers, encourage agriculture, manufactures, and the arts, by the large demand for their conſumption; while a whole country poſſeſſed by indigent proprietors, or ſtill more wretched labourers, contributes nothing to general proſperity, and is an unprofitable population. The income left to all the proprietors after paying their aſſeſſments (nine tenths of the whole), has been ſtated at rupees 26,46,409; this ſum diſtributed

buted among more than 60,000 proprietors, leaves an income to each of thirty rupees, a ſum inſufficient to maintain the family of the pooreſt labourer.

THESE evils, by proceeding to extremity, correct themſelves: the zemindar of a very large diſtrict paying 9-10ths of his whole income to the revenue, on any calamity muſt fall in arrear to government, and part of the overgrown zemindary is ſold to diſcharge his debt; this portion falls probably into the poſſeſſion of ſome ſmaller proprietor: on the other hand, if the property of a petty Talookdar is ſold to defray his arrears of revenue, the probability is, that the poſſeſſion will fall into the hands of a more conſiderable landholder. Hence in the lapſe of time a nearer approach to equality of poſſeſſion will be eſtabliſhed: a perfect equality is unattainable, and probably would be diſadvantageous.

IN Aſia the great body of the people are in a ſtate of extreme poverty and depreſſion. This is the firſt obſervation which forces itſelf on every European when he beholds their condition. The intercourſe of the Britiſh has had conſiderable effect in bettering their circumſtances. After all the avidity and irregularities which have been alleged againſt our Government, its ſubjects are the moſt comfortable and eaſy in their circumſtances of any in India. The farther operation of that government will produce in time effects ſtill more decidedly favourable to the people.

MUCH

MUCH room ſtill is left for adding to their comfort. In the greater articles of lodging, food, and cloathing, their ſituation is far inferior to that of any nation in Europe. Their buildings are light and paltry, which no allowance for their manners will palliate. An Hindoo in eaſy circumſtances accommodates himſelf, it is true, only with a hut; but this hut is clean, neat, and warm: the great body of people creep into wretched hovels, incapable of ſhelter or protection, and of materials ſo wretched as to be unfit for fuel, and it muſt do ſo, not from manners, but from poverty.

THE ſame thing is obſervable in dreſs: the climate does not require the thick and ſubſtantial cloathing of Europeans; but among individuals, whoſe circumſtances admit of choice, there is ſome variety, much cleanlineſs, and elegance of dreſs. When this is contraſted with the miſerable rags or nakedneſs of ninety-nine in one hundred of the people, it is not to be aſcribed to the ſimplicity of Hindoo manners, but to the extremity of their indigence. In their food, fleſh is excluded from the diet of the greater number, and fermented liquor from all; yet that circumſtance will not account for the far greater part eating millet, pulſe, and bad grain, inſtead of white corn: nor will any circumſtance of manners, or religious prejudice, account for the ſmall portion of ſalt, ſpice, and ghee uſed in the general run of meals, while thoſe of the opulent are ſo fully ſupplied with theſe ingredients. It is

therefore

therefore to be concluded that the Aſiatics are poor; and that they are themſelves conſcious of that poverty; and would willingly improve their condition, though incapable of that perſevering induſtry, or that energy of exertion which characteriſes Europeans.

It has been urged, that from the low price of proviſions, the wages of a native labourer is equally competent to his ſubſiſtence, as thoſe of a Briton. This is ſcarcely admiſſible. In England the price of a pound of meat is 5d. and of bread 2d. which makes about one third of a labourer's hire. In Bengal the price of a labourer's wages is one ana per day; that of coarſe rice is the ſame; but meat and bread is a much more adequate meal than coarſe rice, even to a Hindoo.

The average earning of a family in India has been computed at three rupees per month; this, which is probably a juſt eſtimate, can barely ſupport a family in the loweſt form of exiſtence †. Whether the computation be accurate or not, the reſult of it is a correct repreſentation of the condition of the great body of the people in this country. The intercourſe of Europeans with a people ſo circumſtanced has tended to animate their induſtry, to direct it to new objects, and to procure labour an additional reward by increaſing the demand for it.

The

† Vide Remarks, &c. p. 65.

The firſt commencement of our influence was neceſſarily attended with turbulence and confuſion; the exiſtence of a regular Britiſh government is but a recent circumſtance; yet in the courſe of a few years compleat ſecurity has been afforded to all its dependants; many new manufactures have been eſtabliſhed; many more have been extended, to anſwer the demands of a larger exportation. We have therefore conferred upon our Aſiatic ſubjects an increaſe of ſecurity, of induſtry, and of produce, and of conſequence greater means of enjoyment, as well as more ample opportunity for acquiring the knowledge of truth, and the practice of virtue.

THE

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*Chinſurah*, 1800.

A PRINTED treatiſe, entitled Remarks on the Agriculture and Commerce of Bengal *, by a civil ſervant of the Company, may be regarded as the only work on this ſubject. When treating of the profits of huſbandry, the author of theſe remarks diſtinguiſhes the cultivators into three claſſes; firſt, thoſe applying the labour they give to huſbandry to land ſolely on their account; ſecond, thoſe tenants who monopolize land, to relet it to the actual cultivator at an advanced rent; and thirdly, thoſe peaſants who ſuperintend the culture of their lands performed by hired ſervants or workmen.

PERHAPS

* This treatiſe has not yet been publiſhed.

PERHAPS the greater part of the lands tenanted, are poſſeſſed by peaſants who thus hire labour; many being reſtrained by prejudice from perſonal labour; many alſo are contented with ſuperintending the management of labour called in aid of their own. As, however, theſe ſervants and labourers alſo uſe land on their own account, the peaſants in reſpect to number, may be truly deſcribed as labouring unaſſiſted on the lands they uſe.

"A cultivator employing ſervants, entertains one for every plough, paying monthly wages, which on an average do not exceed one rupee per menſem. In a cheap diſtrict we have found the monthly wages as low as eight anas. But the taſk, on a medium of a biggah a day, is completed by noon. The cattle are then left to the herdſman's care, and the ploughman follows other occupations the reſt of the day, moſtly the cultivation of ſome lands on his own account; and this he generally tenants at half produce from his employer. The quantity of land commonly uſed by the ploughman, is aſcertained by the uſage of ſome diſtricts, which authoriſes a ſpecific quantity to be underlet to the ploughman, equal to three biggahs."

THIS portion of land, cultivated ſolely by the perſonal labour of the ploughman, cannot pay him more than ſeven rupees per annum, which added to his monthly allowance, gives a ſubſiſtence of nineteen rupees, or about two pounds ſeven ſhillings of our

money. This is the wages of a very large portion of agricultural labourers.

"If the herd be ſufficient to employ one perſon, a ſervant is entertained; and he receives in money, food, and clothing, to the value of one rupee and a half per menſem. The ſame herdſman, however, generally tends the cattle of ſeveral peaſants, receiving per head, a monthly allowance equal to half an ana. One herdſman can tend fifty oxen or cows, his ſubſiſtence will thus amount to nearly the ſame ſum as the allowance of the laſt claſs, or ploughmen.

When ſeveral ploughs are kept, the peaſant generally has a pair of oxen particularly aſſigned to the implement which ſupplies the place of a harrow: for this is ſuppoſed to require ſtronger cattle than are ſufficient for the plough. A plough complete coſts leſs than a rupee: the price of a harrow is ſtill more inconſiderable. The cattle employed in either, are of the ſmalleſt kind, and will not average more than four or five rupees a head. The medium rule of hire for a day's labour of the plough or harrow is two anas, or nearly fourpence ſterling.

"For a hand-weeding, the labourers are very generally paid in grain inſtead of money: the uſual daily allowance is from two to three ſeer. The labourers bring their own hoes, which are ſmall *ſpuds*, and their coſt is very trifling. Twenty labourers may

may weed a biggah in a day; which is at the rate of ſixty to each acre.

"For tranſplanting, the allowance and labour performed are nearly the ſame. No tool is required for tranſplanting rice, the whole operation being performed by the hand; but for other cultures where a tool is requiſite in planting, an implement reſembling a hoe, on a long handle; or one like a chiſſel, alſo on a long handle, is employed.

"For hand-hoeing, the large hoe which in Bengal ſerves the purpoſe of a ſpade, is employed. It is wide and curved, and ſet on the handle at an acute angle, which compels the labourer to ſtoop low to his work. The ſame tool ſerves to break up old lays, previous to dreſſing them with the plough, and for other purpoſes for which a ſpade is employed in Europe. The pay for digging, though moſt ſevere, is on the ſame allowance with that of other country labour, namely, between two and three ſeer per day.

"Reaping is generally performed as piece work, the reapers being hired at a ſheaf in ſixteen; or, if they alſo carry in the harveſt, at a ſheaf in eight: but the whole expence of gathering the harveſt may be paid with one meaſure of grain in ſix, which provides for the labour of reaping, carrying, winnowing, meaſuring, and ſtoring the crop. The thraſhing

is

is not included, for corn is not thraſhed, but trodden out by the cattle of the farm."

HUSKING of rice, though ſometimes the buſineſs of the corn merchant, is frequently performed by the peaſants on the farm at leiſure times. It is executed with a wooden peſtle and mortar, or under a beater worked by a pedal of a ſimple conſtruction. It is huſked dry for home conſumption; but ſcalded for exportation, as the method beſt calculated for preſervation. The expence of fuel is nearly equal to the economy of labour, the allowance for huſking rice is the ſame in both proceſſes; and is generally contracted for at five-eighths of clean rice to be returned for the original quantity given out: the ſurplus, with the chaff, pays for the labour.

SUCH are the wages of the various kinds of labour, on a grain farm; they are nearly uniform, and certainly very moderate. It appears, however, that a peaſant cultivating on half produce, is ſtill worſe paid for his labour than the workman hired by the day. Some ſmall deductions are made from the crop before partition ſuch as for meaſurement, religious appropriations, &c.; others for ſome of the cultivator's ſmall expences: as theſe nearly balance each other, he may be regarded as receiving exactly one half of the produce to reward his labour,

THE

THE produce of a biggah of rice, being a tolerable fair crop, may be reckoned at ten maunds:

| | m. | s. | ch. |
|---|---|---|---|
| | 10 | 0 | 0 |
| Deduct the proprietor's ſhare with ſeed advanced by him, - - | 5 | 26 | 10 |
| Labour of reaping and harveſting, | 1 | 26 | 10 |
| Twenty days weeding at 2¼ ſeer, - | 1 | 10 | 0 |
| Huſking, with waſtage,, - - | 0 | 21 | 4 |
| | 9 | 4 | 4 |
| | 0 | 35 | 16 |

THIRTY-FIVE ſeer ſixteen chittacks of rice, is worth at an average, not more than eleven anas, which will not defray the labour of ploughing and harrowing, even at the ſmall allowance of two anas per diem. Here no allowance is afforded for the tear and wear of implements, nor for the intereſt of money borrowed for ſtock. It follows therefore that the peaſant cultivating for half produce, is not ſo well rewarded for his labour as workmen hired by the day or month. In rich diſtricts, where the produce is greater, while the ſeed and labour are the ſame, he may be paid; but of theſe diſtricts there are much fewer than of thoſe that yield a produce leſs than that above ſtated; and in all ſuch cultivation for half produce is impracticable, becauſe it will not afford the ſimpleſt neceſſaries.

"In the far greater part of the lands, cultivation for half produce being impoſſible, the rent together with all payments to the landholder and his officers, is only one fourth of the groſs produce. Calculating two crops in the year, one of rice, the other of millet and pulſe; their value oppoſed to the rent and expences of culture, ſeems to yield ſtill a ſmaller ſubſiſtence to the Ryut than either the day-labourer or cultivator for half produce. The plough, with the neceſſary complement of three yoke of cattle, and wages of a ploughman, coſts annually twenty-two rupees and a half; this divided equally among fifteen biggahs of land, which it is capable of cultivating, gives an annual charge for ploughing each biggah, of one rupee and a half.

"The annual profit and charges of a biggah of this land, eſtimating the two crops at the uſual average, will be as follows; viz.

| | *Rup.* | | |
|---|---|---|---|
| Seven maunds of rice at | 3 | 4½ | |
| Three one half maunds of pulſe, | 2 | 3 | |
| | 5 | 7½ | |
| | | | *Rup.* |
| Proportion of the plough - - | | | 1 8 |
| One fourth of produce as rent, - | | | 1 6 |
| Seed, reaping, and harveſting, - | | | 1 6 |
| Two weedings of forty days labour, - | | | 1 4 |
| | | | 5 8 |

"Here

"HERE there appears a loſs againſt the cultivator of one ana and a half for each biggah in his poſſeſſion; the labour, however, for which we have calculated him to pay, is furniſhed chiefly by his own family, who alſo apply their leiſure to other occupations, and thus earn for themſelves and their maſter that ſcanty ſubſiſtence which they enjoy. The lands underlet to his ploughmen alſo contribute a profit to balance in part this loſs.

"IN fact, ſays the author of the remarks, it is not upon the cultivation that the peaſant depends for profit, or even for comfortable maintenance. In grazing diſtricts it is the dairy; in others, it is the culture of ſome more valuable produce which aids the corn huſbandry. In grazing diſtricts, the occupying of arable land is neceſſary to entitle the Ryut to paſture in the foreſts and downs a proportionate herd of cattle. And the culture of corn, though not equally profitable, ſerves to alleviate the riſk of other branches, which ſeem precarious in proportion to the greatneſs of profit. On the failure of his mulberry, or ſugar cane, the peaſant, had he no corn, muſt ſuffer the extremity of want; but raiſing in corn and grain, a ſufficiency for mere ſubſiſtence, he can wait the ſupply of his other wants, from the ſucceſs of other crops; or make a reſerve from the ſucceſsful year to meet the difficulties of another leſs fortunate.

"THE

"THE profits of live ſtock are leſs precarious; they conſiſt of the increaſe of kine, and the milk of buffaloes. Kine are uſually fed near home, on reſerved paſtures, or on the waſte lands of the villages. Buffaloes needing richer paſture, and thriving on rank vegetation, do not find ſufficient paſture in populous diſtricts. The herds of this cattle are moſt numerous in the northern and weſtern diſtricts, where in the rainy ſeaſon they find paſturage on the downs, and in dry weather on the foreſt lands, which are moſtly inundated during the rains. A proportion of the buffaloes travel, in the dry ſeaſon, into the foreſts of the countries which border on Bengal.

"BLACK cattle are grazed at a very ſmall expence. It does not exceed eight anas a head for buffaloes, and four anas annually for cows; and in the grazing diſtricts of Bengal, the whole annual expence incident to live ſtock does not riſe ſo high.

"THE profits of the dairy ariſe from the ſale of milk in various forms, and of clarified butter. As this is a produce which bears tranſport to a different market, we calculate the profit as if the whole milk underwent this preparation.

"THE buffalo can daily ſupply the dairy with two or three ſeer of milk. Upon an eſtimate of milch cows, in the proportion of two thirds of the whole herd, throughout the year, (in which allowance is made

made for the ſuckling of calves), the produce is nearly fifteen maund of milk, for each cow of the herd.

"THE dairy man will contract without wages, to deliver two ſeer and a half of clarified butter for a maund of milk. At this rate the proprietor ſhould receive thirty-ſeven ſeer and an half of butter for fifteen maund of milk, and may diſpoſe of it for ſeven rupees and an half, from which a deduction muſt be made for tranſport from the dairy to the market; for theſe cattle being uſually grazed in remote countries, the temporary hut which ſerves for a dairy is far from the market. This, however, with the expences eſtimated at ſeven anas per head, will hardly reduce the annual profit much below ſeven rupees for each buffalo cow, or thirty per cent. on the capital, valuing the buffalo on an average at twenty rupees, and ſuppoſing that the increaſe of ſtock fully compenſates the loſs by mortality and accidents. We make no account of the few male calves reared for ſacrifices, nor of thoſe reared for labour; buffaloes in Bengal Proper, being rarely employed for burden, are for the labours of huſbandry. The profits of the common cow, by the increaſe of ſtock, are nearly in the ſame proportion to the capital which purchaſed them: they certainly amount to thirty per cent.

"THE profits of live ſtock would be ſtill greater, did the conſumption of animal food take off barren cows and oxen which had paſſed their prime. This indeed can never happen where the Hindoos conſtitute the great maſs of population; but moſt tribes of Hindoos have no objection to the uſe of other animal food. At their entertainments animal food is generally introduced: But meat, (mutton and goats fleſh), being more than double the price of vegetable food, it could not be afforded as a common diet upon the uſual earnings of labour. Whether this circumſtance has much influence, or whether abſtinence from animal food be not rather aſcribable to moral cauſes, may be queſtioned. Probably both have influence, though the latter has the greateſt. From whatever cauſe it be, the conſumption of animal food is not ſo conſiderable as to render the ſtock of ſheep a general object of attention.

THEIR wool ſupplies the internal conſumption of blankets, but is too coarſe, and produces too ſmall a price to afford any conſiderable profit on this ſtock. The valuable articles of ſugar, tobacco, ſilk, opium, cotton, and indigo are the principal dependence of the cultivator for the ſupply of conveniences, and for the acceſſion of wealth. They derive a farther importance as the objects of external commerce, and they have therefore been treated of ſeparately, as minutely as information could be procured.

## PRESENT STATE OF THE LOWER DOOAB.

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*Kinouge, Dec.* 1798.

In paſſing from Allahabad by Caunpore to this place, a diſtance of near two hundred miles, I have had opportunity of remarking the preſent ſtate of the lower Dooab, and of the adjacent province of Oude. The buildings moſt worthy of notice are the remains of the ancient towns of Cuarrah and Mannikpore About two centuries ago theſe places were the reſidence of the government of thoſe provinces which ſtill bear their name. When Acber changed the reſidence of the Soubahdar from Currah to Allahabad, the whole officers of his houſehold, whoſe eſtabliſhment and equipage had conferred an air of magnificence upon the former town, neceſſarily changed their abode.

This powerful cauſe ſoon proved the ruin of Currah; but independent of its operation, the ravages of

of time, in this country, muſt ſpeedily have produced its decline. The incroachments of the Ganges, and even of ſmall rivers, ſoon effect the deſtruction of the ſtrongeſt buildings; ſince the immenſe quantity of rain, which in this country falls in the ſpace of a few hours, gives them a degree of force and rapidity which defies all reſiſtance. The rapid growth of trees proves alſo a very powerful ſource of decay to Indian buildings. The ſeeds of the peeple tree, (Ficus *indica*), as often as they fall upon an old edifice ſpring up into trees with great rapidity; the roots you may obſerve ſpreading along the front of a wall in ſearch of nouriſhment, for twenty feet; wherever theſe find an interſtice they penetrate, while their enlargement gradually looſens and ſhatters the moſt ſufficient buildings. Thus a town in India ſuffers as much in the courſe of fifty years, as in Europe it would do in two centuries. Hence the ruins of Kinouge and Gour, are but barely perceptible, while cities of equal antiquity are in your quarter of the world ſtill perfectly entire. The decay of Currah and Mannikpore, it is ſaid, have been greatly haſtened by the late Nawab of Oude Azoph Dowlah, who ordered ſeveral of the moſt elegant buildings to be deſtroyed for the freeſtone of which they were built, that he might be ſupplied with materials for his new buildings at Lucknow.

The people who inhabit theſe venerable ruins, are lodged in wretched huts ſuited to their depreſſed circumſtances, and ſadly expreſſive of the calamitous events

events they experienced during the diſſolution of the Mogul Empire. Their melancholy ſituation excited a more than common intereſt, becauſe it is unavoidably contraſted in the mind with their former grandeur and magnificence. Our Moonſhee, who is a great adept in the traditional hiſtory of India, aſſures us, that the inhabitants of both cities are in general deſcended from ancient and noble families, who have been celebrated for producing ſeveral literary characters of conſiderable note. The inhabitants of Mannikpore lay claim to ſanctity as well as learning; they are ſaid to be deſcendants of the Seyds of Curdeſi, a city of Perſia. Of this ſanctity and learning you however will form no elevated conception, when you are told that the preſent Rajah of the diſtrict is the repreſentative of an ancient family who received the government of it from a Fakeer, who had himſelf obtained his inveſtiture from the hands of the Deity: here then is a prince who poſſeſſes his rank, ſtill more literally than was ſuppoſed of European monarchs, *jure divino*.

The whole face of the country in the lower Dooab, as well as the appearance of the ruined towns, wears a melancholy gloom. Remains of its former population and fertility are continually meeting the eye of the traveller, which he contraſts with the extenſive waſtes or jungles that now occupy ſo great a part of the ſurface. Large tanks, topes, and ſerais, are ſeen at ſmall diſtances upon the roads. In the formation of theſe the religious maxims of the natives

tives are ſtrictly connected with utility. To dig a tank, to plant a tope, or to build a ſerai, every Hindoo exerts himſelf as far as his circumſtances will permit, in the full conviction that he can in no other way ſo certainly promote the good of his fellow creatures, or ſo effectually work out his own ſalvation. Without tanks, the cattle during the dry ſeaſon would periſh; and without wells the traveller could not ſubſiſt, nor agriculture be carried on. The number of both that is neceſſary implies ſo great labour and expence, that government has frequently lent its aſſiſtance to the inhabitants: and the hiſtorian of his own time, Golam Hoſſein Khan, ſeriouſly urges it as an objection againſt the Britiſh, that neither individuals nor government have intereſted themſelves in theſe works of neceſſity and mercy. The former, he complains, are prevented from colonizing, and therefore never can regard India as their home. The only principle that can actuate them, is the moſt expeditious method of accumulating a fortune, with which they may retire from the country; the intereſts of which are conſidered by them as remote as its ſituation. From the very nature of the caſe, there muſt be ſome foundation for the complaint of this author; and our ſucceſſors in India will have cauſe to regret that ſtill fewer of theſe neceſſary erections remain than there is at preſent. Since therefore individuals cannot feel an affectionate intereſt for the welfare of a country which they are forbid to regard as their own; it is to be hoped that government will do away the grounds of

this

this complaint. However fluctuating the ſituation of individuals may be in India, the intereſt of government is permanent in the country.

THE millet is now ripe, and affords an excellent provender for our camels, elephants, and bullocks. I had frequently regretted that ſo much of the ground was occupied by a ſmall eared pitiful grain, but the vaſt quantity of ſtraw about ten feet long, and an inch in circumference, makes a fair compenſation for the meanneſs of the ear. The number of cattle neceſſary for the camp equipage of an Indian army is immenſe, and without a ſupply of this provender which ripens exactly at the commencement of the cold ſeaſon, it would be impoſſible for any conſiderable body of troops to keep the field. Our army, when joined by the different detachments, will conſiſt of about eighteen thouſand infantry and cavalry, and probably of a ſtill greater number of the Nawab's troops. Theſe will be attended by more than twenty thouſand cattle of different kinds, and camp followers to five times that amount.

IN our preſent ſtate we cover a line of march the length of from ſix to eight miles. The marching of a native army through a country either in a hoſtile or amicable manner, uniformly commits ſuch devaſtation: European diſcipline, and the attention of our commanding officer, has converted this ſcourge of India to an advantage; for wherever our troops penetrate, a market is thus provided at the peaſants door

door for almoſt every article he can ſpare; while his perſon and property are more ſecure than on ordinary occaſions: for it is ſeldom the camp followers are allowed to incroach even upon a corner of his corn field.

INSTEAD of the ordinary relief of the troops at the different ſtations, we have learned that we have marched thus far on the commencement of a freſh campaign; and that our battalions are to oppoſe the enterpriſes of Zemana Shah, the Perſian King, and the Mahrattas; and to co-operate as covering army to the troops at Seringapatam: a meaſure at once judicious and neceſſary. Zemana Shah and his anceſtors have for many years been the ſcourge and terror of Hindoſtan: even by European troops he has been dreaded as the Porus of modern times. I had therefore ſome curioſity to remark the countenance of our Scottiſh regiment, the 78th, when they were informed of their deſtination to oppoſe him. It was gratifying to obſerve that they marched not only with perfect willingneſs, but alacrity to the muſic of the Bag-pipe over thoſe very plains where the troops of Alexander mutinied in circumſtances not diſſimilar.

THE rapidity of our movements will ſeldom admit of my viſiting the interior of the country at preſent; you may however depend on having an account of the ſtate of thoſe parts bordering on our route regularly ſent you. Report ſays, that our deſtination is the foot of Tannaſſir, which is an hundred miles above

above Delhi, and conſequently much higher than any European army ever penetrated into India.

EVER ſince we left Caunpore, the country is not only generally cultivated, but diſplays at this ſeaſon a great variety of rich crops. The barley is ſufficiently high to cover the mold, while bajerry and ſugar that intervene, are between eight and ten feet in length, and ſo thick as to exclude the ſun. Such places as are not covered with grain are either planted with tamarind trees, or large mango topes, forming a cool ſhade to the cattle under their branches.

ON looking around, therefore, the whole country ſeems to be overſpread by large foreſt trees, except a ſmall circumference immediately in your vicinity. Some extenſive ſandy deſarts muſt lie to the weſt of Delhi, otherwiſe the ſeverity of the hot winds in this latitude could not be accounted for. Were the duſt upon the ſurface uniformly covered by trees, or by a crop of grain, it could not acquire that exceſſive heat which it communicates to the atmoſphere during the months of April and May. This is not matter of conjecture; but it is by obſervation diſcovered that a large tract of barren ſand reaches from the mouth of the Indus to the weſt border of the province of Delhi.

THE topes here are as ſerviceable to travellers as to cattle: no perſon who has not experienced the fatigues of a journey in this country can conceive the

laſſitude and thirſt which the intenſe heat occaſions. Even in the winter ſeaſon, the morning only is cool; towards mid-day the traveller retires to reſt in a tope, where he probably finds a well to quench his thirſt, and to refreſh his weary cattle. So ſenſible are the natives of the benefit, that you frequently meet ſome of them waiting at the well ready with a pitcher and a rope to draw water for ſtrangers; many eſpecially of the females, are in this reſpect as hoſpitable as Rebecca was to Iſaac. Some, I truſt, profit by this kindneſs; for benevolence ſtill poſſeſſes attractions as ſtrongly as in the days of that good patriarch.

THE ſerai in Hindoſtan is more ſuited to the rich than poor traveller, ſince even the ſmall pittance that is there demanded, far exceeds the inclination or abilities of an Hindoo. If he has a little rice in his girdle, he feels little concern at the want of the luxury of an houſe; for of the many thouſands who now fill our camp, not a tenth part ſleep under any kind of roof. They kindle fires of any rubbiſh that the place may afford, and after wrapping themſelves in a coarſe blanket, truſt to the fatigues of the day for ſound and refreſhing ſleep.

SHOULD a great man with his retinue paſs along, the ſerai is wholly occupied by him for the time; he ſends before to take poſſeſſion of it, when he gives ſecurity to the Cutwal or Zemindar for the orderly behaviour of his retinue; a precaution probably very neceſſary to the peace and property of the village.

lage. The retinues of a feudal lord were never more licentious in Europe, than the idle banditti that at this day accompany an Indian chief on his journey. It is common to have the victuals dreſſed in the ſerâi, to have water provided for this purpoſe, and for waſhing the ſtrangers feet, which is here deemed a mark of hoſpitality and politeneſs, as it was by the inhabitants of Judea. The looſe ſandals, and the want of ſtockings, admit much duſt, while the feet ſuffer by the friction of ſo looſe a ſhoe; much greater comfort and relief is derived from bathing the feet than a European would ſuppoſe.

OF

## OF THE ZEMINDARY OF ALMASS, AND HIS CONDUCT TO THE RYUTS.

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*Camp near Kinouge, Dec. 9, 1798.*

EVER ſince we left Caunpore the country has been uncommonly rich and well cultivated. The ſugar cane and millet crops are nearly ripe; and their appearance makes a fine contraſt with the barley which begins to cover the ſoil. A crop as rich in appearance would lodge and rot in any part of Britain; but there vegetation is encouraged by frequent rain, whereas the barley and wheat here will not receive a ſingle ſhower till they are trode out and ſecured. Almaſs Ali Khan Bahender is collector of the revenue throughout the whole of the Dooab, and on the ſide of Oude from Mirzapore as far as the fort of Tannaſſir, a diſtance of more than four hundred miles.

HE

He is now about eighty years of age, and from the length of time he has managed this extenſive tract, probably the largeſt in India, he has amaſſed a large fortune, amounting, by report, to ſeveral millions. He is in fact too powerful to be called to account for his management, or to remain in the condition of a ſubject. Had not the late Nabobs of Oude been ſupported by the Britiſh Government, it is more than probable that they would long ſince have fallen a ſacrifice to the treachery or ambition of this powerful chieftain, who makes his progreſs through his diſtrict collecting the rents with an army much more numerous and better diſciplined than that under the immediate command of the Vizier. The character of this man is deſcribed as avaritious in the extreme: it is ſaid that as ſoon as he finds the children and women of a family earn any thing beyond their neceſſary ſupport, that he uniformly makes freſh exactions on the Ryut. If a peaſant can ſupport life upon half a rupee per month, he will ſoon find himſelf reduced by the exactions of the eunuch to that ſum.

These repreſentations are probably exaggerated, ſince it is allowed by all, that the large zemindary under his direction is the beſt cultivated, and the moſt populous of all the Nawab's dominions. The experience of Almaſs muſt long ſince have taught him that it is not by the utmoſt rigor of exaction, or by grinding the faces of the poor, that the greateſt rent can be drawn from any quantity of land. Protection,

tection, ſeaſonable indulgence, and ſecurity, are all neceſſary to a ſpirited cultivation in every country; and by the effects of theſe it appears that they are afforded to the Ryut here, as perfectly as in any diſtrict I have yet ſeen in India.

The ſame attention is here paid to the planting of topes; the trees in all of them are not only numerous, but they are placed with much religious exactneſs, that they meet your eye in ſtraight lines, from whatever direction you view them. In one reſpect the raiſing of mango groves is conducted with greater care than I have elſewhere noticed: all the young trees are ſurrounded, during the firſt and ſecond year, with a plentiful covering of ſtraw, which tied at the upper end ſpreads below to afford room for the plant, like the thatch ſheaf put with you over a bee-hive to defend it from the cold.

Yesterday Almaſs joined us at Mindy Ghand, near the famous city of Kinouge, which before Delhi, is ſaid to have been the capital of India. Our eſtabliſhment of brinjaries already amounts to fifteen thouſand. What will be their numbers when all are aſſembled, I dare not offer to conjecture; yet with all theſe attendants, beſides our elephants, camels, and draught cattle, our march proceeds with much regularity The elephant's ſagacity can hardly be regarded as inferior to that of his guide; for he not only lies down to receive his rider, but he lifts his burden, piece-meal, with his proboſcis, and hands it

to

to a perſon who adjuſts it on his back. He breaks off the branches of trees not only when neceſſary for his food, but when any large branch interferes with the line of march; he bends it with the trunk, till he can put his foot upon it. when it is inſtantly torn down. In a crowd, the people around him ſeldom receive any hurt, for he carefully removes with his trunk thoſe that are upon his road.

We this day paſſed over the ruins of two towns formerly of importance; I could not learn their names; they are probably the ſuburbs of the ancient city of Kinouge, which lies near our camp, towards the interior part of the country. The fields, during this day's march, were equally rich and fertile with any we have yet ſeen. Our encampment was yeſterday upon the bank of a ſmall limpid river, reſembling thoſe in your country in the purity of its water. This ſtream is ſacred; and, according to the faith of many, has greater efficacy in waſhing away moral defilement than even the water of the Ganges itſelf. A perſon in Ceylon drinks daily of this river, though at the diſtance of perhaps three thouſand miles, and at the expence of 5000 rupees per month. It is carried like the water of Hurdwar, in bangies on the ſhoulder.

I went lately to view Minday-Ghaut, a reſidence of Almaſs. The place conſiſts of two Bazars, protected by two mud forts, each about a mile in circumference. The bungalow and gardens of the eunuch

much are of moderate extent and mean appearance. His ordinary retinue, however, conſiſts of about three hundred horſe, whoſe ſtables are adjoining to the bazars. European vegetables are cultivated here by a manufacturer of indigo, who carries on the buſineſs on a larger ſcale than any I have yet met with. Laſt year he manufactured and ſent to Europe eight hundred maunds, which at the ordinary eſtimate per acre, gives him a cultivation of no leſs than 1333 acres of land. The vats are excavations dug in the ground, and neatly lined with brick and lime. The workmen, and their utenſils are furrounded by a ſmall mud fort, to protect them from the incurſions of thieves and banditti. The boldneſs and numbers of theſe plunderers is hardly credible, in the upper part of India. Our camp followers ſteal from each other, or are plundered by the robbers who daſh into the camp by night. As often as they are in danger of being detected, they accompany the theft by murder. We had this day the misfortune to have one of the horſes of the European cavalry drop into a well; the animal was drawn up unhurt; but the perſons employed in this work found three men at the bottom of the well who had been murdered the preceding night. Every cultivated field requires ſo many of theſe wells for irrigation, that it is ſurpriſing accidents of this nature do not oftener happen.

*Dec.*

*Dec.* 10.—I this day travelled over the ruins of Kinouge, the moſt extenſive perhaps in the world. For many miles before you enter the preſent town, you travel through jungles interſperſed with ſmall fields of tobacco, that conſiſt of brick-duſt and mortar. To remove all doubt that the rubbiſh conſiſts of the remains of a town, walls and broken gateways here and there raiſe their heads in defiance of time. The greateſt part of the ſtanding buildings are ruinous, uninhabited, rent, and tottering to decay. The few poor people now in the place accommodate themſelves under mud huts buttreſſed up againſt the old walls. Not a great many buildings are intire; whole mountains of unſhapely ruins meet your eye in every direction; upon a ſpace of ground much larger than the ſcite of London.

Amidst theſe heaps of deſolation, there are ſpots here and there under tobacco; which is almoſt the only European plant of univerſal requeſt in Hindoſtan. The ruins of ſuch buildings are with great difficulty converted into arable land; for brick-duſt does not aſſimilate with the ſoil till after many centuries; the action of fire having changed its nature. The brick in this country ſeems of an inferior kind; though it is perhaps the oldeſt manufacture in the world, and is baked by being interlaid with beds of ſtraw, which is ſet fire to. The complaint of the Iſraelites that they were compelled to furniſh their tale of bricks without being allowed ſtraw, ſeems here perfectly relevant; becauſe it does not

appear that the Orientals ever had any other method of preparing them. One ſpecies of brick in uſe for the principal buildings of Kinouge, is very rare, of a large ſize, and half vitrified. The colour of this ſort is ſlate blue: it is more coarſe than the common, but has proved far more durable.

The breed of cattle ſeems to diminiſh in ſize gradually as you approach the upper country; as however we are ſtill far from the mountains, it is not eaſy to account for their ſmall ſize here. Bullocks, horſes, aſſes, and buffaloes are not above half the weight that they are in many parts of the lower provinces. Here is however a much greater variety of working cattle than Europe can boaſt of; the buffalo, the camel, and the elephant are little known there, while the aſs and the cow are here often uſed for riding as well as the horſes, yet the former is ſeldom much larger than a good Engliſh ſheep.

## OF THE STATE OF THE UPPER DUAB, AND THE VICINITY OF DELHI.

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*Anopſheer, Dec.* 26, 1798.

OUR route to this, the higheſt ſtation of the Company's troops upon the Ganges, has been through Futtighur, Ferruckabad, Sahebgunge, Mow-Shumſabad, Rhoodol, Cumbul, Doriahgunge, and a variety of other towns, or rather villages; for the country becomes gradually leſs populous as you recede from the Company's provinces This part of our route has frequently been interſected by detached ſhreds of territory belonging alternately to the Nawab Vizier of Oude, and the Mahratta ſtates, and diſplays a worſe ſpecies of human aſſociation than any I have yet witneſſed; for I will not call that gloom of deſolation which gradually thickens as you approach the vicinity of Delhi, by the name of government.

WE

We arrived at Anopſheer this morning, and ſhould no enemy appear, it is probable that this will prove the termination of our march upwards. Anopſheer has the appearance of having formerly been a place of ſome ſtrength and conſideration. On the ſouth, the town is defended by a large brick fort; which muſt have been almoſt impregnable to a Mogul army, even although it does not poſſeſs any place that could ſtation a battery of cannon: like Mongheer, Chunar, and Allahabad, it has been erected chiefly againſt cavalry; and is intended to be defended by bows and arrows. The loop holes for theſe are numerous in every part of the wall.

From this citadel there is a commanding view of the whole country, and of the Ganges meandering through it for many miles. That river is at this ſeaſon reduced to a ſmall breadth; its ſtream is as pure and limpid as your rivers in Britain. The weſt bank riſes perpendicular about thirty feet, and on that ſide the country is not overflowed; while on the oppoſite ſide, the ſlope from the bank is almoſt imperceptible, and the fields bear the marks of being inundated for ſeveral miles. On this account the territory of Rohilcund is naturally made more fertile than this part of the Dooab which lies oppoſite.

The town of Anopſheer has on ſeveral occaſions been the ſtation of the Company's troops; and like the other military ſtations, the vicinity has benefited much by the circulation of pay. The fields to the eaſtward

eaſtward are well cultivated; and what I have not yet often ſeen, they are tolerably fenced. The ſtrong jungle graſs is plaited into webs of a ſort of baſket-work, and theſe, placed upon their edge on the ſides of the field, protect the grain from almoſt every kind of cattle except the wild-hog. These animals are here numerous, as are deer, and game of all kinds. Since the conqueſt of Rohilcund in 1774, that fine country has rapidly degenerated into a waſte, under the deleterious politics of the miniſters of Oude. The natives are a tall, handſome race of people; and when compared with the other inhabitants, are white, and well featured. They ſtill carry about in triumph ſome couches and palankeens of European officers that were killed by their army in the fatal action of 1774, by which we purchaſed a victory at a greater expence of European lives than was ever ſuffered by the ſame number of troops in India.

The country towards Delhi, on the north and weſt, diſplays a naked ſterility which is ſeldom interrupted by the intervention either of trees or cultivation. The forts and great cities in the late convulſions of the empire had moſt frequently the misfortune to attract the violence of depredators. Delhi, and its fertile plains, are ſaid to have been plundered by almoſt every victorious faction; and the preſent dreary aſpect of that capital and its ſuburbs, affords a melancholy proof of the truth of this part of its hiſtory. The town of Anopſheer is contained within a ſtrong mud wall, and therefore is of no great extent,

tent, but of great population. It contains a very unſeemly medley of brick and mud buildings; the former from the want of proper cement appear very inſufficient. There is at the north end of it a Mahal of ſome antiquity, and conſiderable ſize. It is a large maſs without either form or dimenſions, and will therefore admit of no deſcription. The ſurrounding wall of this town is in ſome parts twenty and thirty feet thick, and of courſe it could hold out for ſome time not only againſt cavalry, but even a train of artillery. It is cuſtomary for the zemindar of a village, when the rent is demanded of him, to refuſe payment, and betake himſelf and his effects to the fort. Here he ſtands out againſt all demands till reduced by a military force. The government, on its part, adheres to no contract or agreement that may have been entered into with the ryuts; but in a year of ſuppoſed plenty, it exacts perhaps twice the quantity: Indeed, at every ſeaſon, it is not what rent the tenant has *ſtipulated*, but what he is ſuppoſed *able* to pay, that is exacted from him. This palpable iniquity of government naturally provokes reſiſtance; and a zemindar whoſe wrongs have driven him upon his defence is, according to the language of the country, ſaid to be *refractory*. This phraſe, like the malignancy of our old republicans, is of ſuch happy ambiguity and vaſt comprehenſion, that it implies every ſort of guilt; and is deemed puniſhable by maſſacre, plunder, burning, or any kind of military execution.

While

WHILE government is thus unjuſt in its exactions, it performs hardly any of the duties due to the allegiance of its ſubjects; for here there are no courts of juſtice, and no protection given againſt thoſe plundering banditti who infeſt the country. For his protection and perſonal ſecurity againſt theſe, every inhabitant muſt truſt to his individual arm; or to the mud forts which defend each village againſt the enemy, or againſt government, which is in fact the greateſt enemy the wretched peaſantry have to fear. The ryuts, driven to deſpair, are forced to take up robbery for a ſubſiſtence; and when once accuſtomed to this wandering and irregular life, it becomes ever after impoſſible to reclaim them to induſtry, or to any ſenſe of moral duty. We had yeſterday a melancholy example of the daring profligacy of which they are capable: An officer who rode out only a mile beyond the piquets, was attacked by a party of five horſemen; in the midſt of a friendly converſation, one ſtabbed him in the breaſt with a ſpear, which brought him to the ground; then the others robbed him of his watch, his horſe and every article of his clothing. In this naked ſtate he arrived at the piquet, covered with blood; and had he not been able to walk thus far, he muſt have fared worſe than the man who "between Jeruſalem and Jericho fell among thieves," ſince here there is not one "good Samaritan" to pity the unfortunate.

Dowdal Row Scindiah under whoſe juriſdiction this country is, has been unable by any means he has

has deviſed, to eſtabliſh regularity, or afford protection to the peaſantry. For this end every effort proved abortive, even in days of the plenitude of the Imperial power; ſince one hundred thouſand of this very people (Mewatti) were maſſacred at one time, and yet the diſtrict ſtill continued to be infeſted with maurauders. Lately, when ſix were capitally puniſhed for this offence by Scindiah, a ſtraggling party entered Delhi by night, and inflicted the ſame puniſhment on an equal number of his troops that lay within the city.

After about ten days rainy weather we have a return of the north-weſt wind, with a clear ſky; the mountains to the north-eaſt appear unuſually plain. Their diſtance is called two hundred miles, and the nearer ridges are here entirely unſeen. Their appearance is exactly that of ſnowy clouds towering to an immenſe height in the ſkies. It would ſeem that Europeans had not ſufficiently aſcertained the height of the Thibetian mountains: They are ſituated in the center of the largeſt continent in the world, and are probably the higheſt mountains upon its ſurface. Teneriffe, which I have ſeen, and which has the reputation of being the higheſt land on the old continent, would not be at all viſible at the diſtance of theſe mountains, which even here ſeem to ſoar above the clouds. They are eternally covered with ſnow; and when the wind blows from their direction, the weather, to our feelings, is much colder than in Britain. Fluxes and agues are the prevailing diſorders which it brings on.

on. From the heat of 130 down to 30, is here the range of the thermometer in the ſame day, which is probably greater than in any other part of the world.

We this day left our ground at Anopſheer for Lucknow, and Miah Almaſs marched along with us. Though he is accompanied only by a few battaſions, the confuſion among his followers is beyond all deſcription. I have been viewing his heavy baggage paſs over a river by two bridges. The confuſed noiſe of men, ſheep, goats, bullocks, elephants, and horſes, who all attempt to paſs at the ſame time, reſembles the uproar of fiends broke looſe from their infernal manſions. Whatever blunders their drivers commit are puniſhed upon the poor cattle, whoſe backs reſound with the blows of their heavy cudgels, and the ſame diſcipline exerciſed on the ſoldiers atones for the faults of their commanders. *Quicquid delirant reges plectuntur Achivi.*

We are now entered upon the territory of the Rohillas, formerly called Catheir. According to Mr Hamilton, the hiſtorian of this people, the name of Rohilcund is but of recent application to this country, and was given it by the conquerors of that tribe. The Rohillas themſelves are, he aſſerts, the great cauſe of the ruin of the country which bears their name; it was parcelled out among their chiefs, who had afterwards but a feeble connection with each other, while their dependence on Haſſey Rhamat,

their prince, was more nominal than real. Hence their frequent wars, and their oppreſſive conduct, which gradually wore out the native Hindoos. The Mahrattas had invaded the Rohilla country at the time that they required the aid of the Nabob's troops for their expulſion. The ſum ſtipulated for this ſervice was never paid, and the Nabob to inforce it, ſolicited the Company's aſſiſtance, which effected the payment of the ſum, but fortunately enabled that ſanguinary tyrant afterwards to complete the deſtruction of the Rohilla government, and nearly to exterminate the people.

REMARKS

## REMARKS ON THE STATE OF ROHILCUND, AND THE GOVERNMENT OF OUDE.

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*Barcilly, Feb.* 2, 1799.

Our ſudden march acroſs the Ganges towards Lucknow, was occaſioned by the eſcape of Vizier Ally from Benares, after having aſſaſſinated ſeveral of the moſt reſpectable inhabitants on that ſtation. This illiterate and ſavage youth was raiſed to the throne by the caprice of Azoph Dowlah, about a year and a half ſince, and had been lately depoſed by Sir John Shore, in order to make way for the lawful heir of theſe provinces Saadut Ally, brother to the deceaſed Nawab. This prince juſtly alarmed at the eſcape of a deſperate aſſaſſin, with pretenſions to his throne, has implored the protection of the Company's army; and this circumſtance will afford us an opportunity of examining the ſtate of this ſingular

gular kingdom, which has ſo long been allied to the Britiſh, and protected by their troops.

BARCILLY is a large town, the capital of Rohilcund; the route to it from Anopſeer has been by Chandowſee, Biſowlee, Owlah, Aligunge, and ſome other villages of little note; for this fine country within the laſt twenty years, has become a vaſt deſart. Extenſive waſtes every where meet your eye, which were lately in cultivation; but which are now covered with long graſs, which in the hot ſeaſon becomes ſo parched as to be eaſily combuſtible.

OF this we had an alarming proof by the accidental kindling of the graſs to the windward of our camp: The flame ſpread ſo inſtantaneouſly, that it was with ſome difficulty we were able to ſave our tents and baggage. This accident ſuggeſted to one of our officers a plan of annoying an enemy, which I do not remember to find in uſe in the annals of the moſt ingenious deſtroyers of mankind. It is to ſet fire to the graſs to the windward of the camp, and while the enemy was buſily employed in getting it under, to attack him on the flanks and rear: Happily for the prevention of ſuch a meaſure, ſuch an extent of deſolate and rich fields are no where to be met with but in Rohilcund.

AMIDST the preſent ſolitude and gloom of this province, you ſee evident traces of its former cultivation. The clods left by the plough are not yet melted

melted down, ſo as to aſſimilate with the ſurface; nor is the graſs of that extraordinary coarſe and ready ſpecies which riſes upon fields in their primeval wildneſs, or that have long been out of tilth. A very little effort would again bring it back to its productive ſtate, were there inhabitants to cultivate the ſoil.

But from the quantity of land under crop, the population of Rohilcund muſt be very ſmall; not the hundredth acre is in cultivation; a proportion ſo ſmall that the wild animals are in danger of devouring the people and their ſubſiſtence. You here ſcarcely ever ſee a barley field that has not ſeveral huts of ſtraw erected without walls, to accommodate a watchman in the night. The deer invade the crops in ſuch numbers, that without this precaution it would be deſtroyed. Foxes, jackals, hares, and almoſt every ſort of game range in the deſerted plains unmoleſted. The march of the army puts them to flight in all directions. It was, I believe, one of the charges brought againſt Mr Haſtings, that he lent a brigade to Azoph ul Dowlah for the extermination of the Rohillas. The face of the country offers but too ſtrong evidence of the fact of depopulation; but it muſt have been owing to a rigorous policy afterwards that the country remains deſolate, ſince the conqueſt of a Britiſh army has invariably the contrary effect, by increaſing the ſecurity of the people.

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THE hills have this day and yeſterday been conſtantly in view, and more diſtinctly viſible than ever. They preſent the appearance of vaſt towering and abrupt precipices of ice, compared to which, the Glaciers in Switzerland would probably appear as an inconſiderable hill. Nearly in the direction of the mountains, the wind blows freſh, and ſo cold as to freeze the water in our tents. The thermometer in them has been laſt night as low as 31°. but this will not account for the violence of the congelation, which I apprehend is owing to the great quantity of ſaltpetre with which the ſoil here is impregnated. In China the ſame circumſtance is brought to account for the preſervation of ice, which is there carried about the ſtreets upon carts, without melting in any conſiderable degree.

*FEB.* 3.—The large river Ram Gunga lies between this city and our laſt encampment at Aligunge; we croſſed it on a bridge of boats, too ſlender for the weight of the elephants, though it bore the carriage guns. The ſagacious animals, apprehenſive from its appearance, that it was inſufficient for their weight, could not be induced to attempt it, though they paſſed that ſtronger one over the Ganges without the ſmalleſt heſitation.

THE fort of Barcilly is deemed a command of great truſt by the Oude government, as it keeps in check this recently conquered nation. It is at preſent conſided to Mirza Ali Khan, a ſon of the Nawab.

wab. He met our army with a ſplendid retinue of cavalry and howdahed elephants; but did not find the General, who had left the line of march to view the ſcene of action between our army and the Rohillas in 1794.

THESE warlike people, untaught by their former defeats, with thirty thouſand cavalry, bravely attacked our troops, who by ſome ſtrange miſmanagement gave way on the right, and were cut down in great numbers. Our whole line, however, from the center to the left, maintained its ground ſo ſteadily, that the victorious Rohillahs were afraid to reſume their attack, and the battle ended in their total defeat, though with a greater loſs on our part than had been ever ſuſtained by ſo ſmall an army.

MONUMENTS are uniformly erected by the Muſſulmans over the graves of their deceaſed chiefs: many of theſe are now ſtanding here, where a perſon is appointed to keep perpetual lamps burning at the graves of diſtinguiſhed perſons. The Mahommedan religion, however it may prohibit any ſenſible object of worſhip, avails itſelf of the reſpect of friends for their relations, and for eminent characters, in animating their devout feelings: a departed warrior is by them revered as a ſaint.

BARCILLY is a large town, and crowded with inhabitants, who loiter or wander through the ſtreets, without much appearance of buſineſs. It is probable

probable that the want of protection in the country forces a great number into the town; but how they ſupport themſelves there does not admit of an eaſy ſolution. Few manufactures are vended in a country where the inhabitants are thin, and where even theſe are ſo poor as not to aſpire at any of the luxuries of life. Sweetmeats and confections, different kinds of grain, with ornaments for the women, ſeem a great part of the commodities that were expoſed to ſale in the ſhops. Brazen water pots are here manufactured, but in ſmaller numbers ſince the ruin or emigration of all the wealthy chiefs.

HAFFEY RAMUT, the firſt Rohilla prince who was ſlain in the battle of Cutterah, lies interred in a large mauſoleum, which forms a very diſtinguiſhing ornament to Barcilly. The fort is a large irregular maſs of building, equally deſtitute of elegance or ſtrength. It may however prove a check upon an irregular army without a battering train. Like all the other forts in India, it has no baſtions for guns; a ſtrong argument againſt the practical uſe of field-pieces being known in the country.

THAT the enterpriſe of Europeans ſettled in this country may add to the induſtry and wealth of the natives, has already appeared in various inſtances. Even the wretched government of Oude has not been able to counteract its operation. A few active individuals of our countrymen, in defiance of all the obſtacles thrown in their way, have been able to introduc-

troduce the culture of indigo and ſugar; and to extend the trade in cloth manufactured at Taunda and Kerabad. It is this circumſtance that has hitherto warded off, not the decay, but the ruin of this country, which Mr Haſtings had predicted. The Vizier's inability to pay the ſubſidy has often been pleaded; and from the deficiencies of his revenue, upon perhaps fair grounds.

The provinces of Oude and Rohilcund are naturally fertile, yielding rich crops of wheat and barley; and the wretchedneſs and poverty of the people, however much it may reproach government, does not militate againſt this fact. In the time of Sujah Dowlah the revenue amounted annually to upwards of three millions, under no very correct management. The natives are themſelves of opinion, that with the ordinary protection given to the Britiſh territories in India, theſe provinces would yield a revenue of four millions ſterling.

The proſperity of the Vizier's dominions is not only intimately connected with that of the India Company, but with the Britiſh commerce in this part of the world. With a greater degree of wealth and protection, their inhabitants would become cuſtomers for the broad cloths, cutlery, arms, and other European articles; and might prove the means of conveying them into Candahar, and thoſe nations towards the banks of the Indus. The fertility of the

lands on the banks of the Ram Gunga, the Goomtee, and the Gogra, would powerfully ſecond the efforts of a regular government in improving the condition of the people. "In the Dooab the ſoil is ſo much adapted to the produce of indigo, that the plant is there found in its wild ſtate; and in this produces a much greater quantity of dye, and of ſuperior quality to that produced by cultivation*." The ſugar cane, which thrives remarkably through the country in Rohilcund, is more luxuriant than perhaps in any other part of India.

THE fertility of the Vizier's dominions is ſecured by the copious ſtreams which every where pervade them, at once enriching the ſoil and facilitating the means of conveyance. What effects a free trade and protection might produce on kingdoms ſo greatly favoured by nature, it is difficult to conjecture; but they certainly promiſe a more abundant ſupply of tropical productions than the Weſt India iſlands. Whatever governor ſhall put in activity theſe grand ſources of improvement, by removing the oppreſſions and iniquities of the Oude government, will ſurely confer upon himſelf higher honour than they can claim who laid the foundation of the Britiſh power in India.

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* Vide Civis Letters, p. 16.

THE outline of a very plauſible ſyſtem of regulation was publiſhed ſome years ago, and has, I am informed, received the approbation of ſome of the beſt judges. It conſiſts only of a few articles, which you will excuſe me for inſerting in this place, in the humble hope that they will be adopted.

1. IT was propoſed that a member of the Supreme Board, or a ſenior ſervant ſhould be nominated reſident at Lucknow, to act as miniſter to the Vizier; but anſwerable to the Supreme Board.

2. THAT four civil ſervants be appointed to Lucknow, as a board of revenue and trade, at which the reſident ſhall preſide.

3. THAT the country ſhould be divided into diſtricts as in Bengal and Behar, and civil ſervants appointed to each to collect the revenue, under the ſame regulations as in the Company's territories.

4. THAT Adawlets, or courts of juſtice, be eſtabliſhed in each city and diſtrict, with a judge and regiſter, ſervants of the Company, and ſubject to the ſame regulations, as they are in the other provinces.

5. THAT

5. THAT a treaſurer and paymaſter, and other neceſſary officers be appointed from the ſervants of the Company.

6. THAT all impoſts and duties be entirely aboliſhed; and that all goods, the produce of Great Britain, or of the Company's provinces, be permitted to be imported to the dominions of Oude, and the countries weſt of them, and there ſold duty free; and that on the other hand, all articles the produce of the Vizier's dominions, ſhould be imported into the territories of the Company without moleſtation.

7. THAT the whole of the Nabob's troops ſhould be diſbanded, and two brigades of cavalry, conſiſting each of ſix regiments, five hundred ſtrong; and two brigades of infantry of the preſent ſtrength (1793), be raiſed to defend and protect the country; theſe to be on the ſame footing, in all reſpects, as the Company's other troops now in theſe dominions.

8. THAT the ſurplus of the revenue, after paying the above civil and military eſtabliſhments, and other expences of the government, all of which ſhall be regulated on the ſtrict principles of economy, be paid to the Nabob for his expences, and to defray ſuch penſions as he

he may chooſe to pay to his relations and dependents *.

PROGRESS

* Since writing the above the Marquis Welleſley has reſumed the government of Rohilcund, and adopted nearly the very plan here mentioned.

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*Camp near Belgram, Feb.* 1799.

OUR route through Rohilcund to this town preſented to us a great extent of the devaſtated provinces of the Nawab Vizier. The firſt march from Barcilly to Fouridpore, conveyed us for fourteen miles through fields almoſt entirely waſte. Two bridges of brick facilitated our paſſage over ſmall rivers, which water this once plentiful region. The face of the country was, during this day's march, diverſified with heights and ſwells, a circumſtance very rare throughout this vaſt plain, from the Thibetian mountains to the bay of Bengal.

NEAR the line of march, lies Cutterah, a large and ruinous village, remarkable for being the ſcene of that

that deciſive battle of 1774, in which Sujah Dowlah defeated the Rohillas. This action decided the fate of that brave people; for in it Haffez Rhamut, their chief, was ſlain, and our army penetrated their country as far as Loll Dong at the foot of the mountains.

The old village of Cutterah, is a motley aſſemblage of ruinous mud houſes, not a tenth part of which are at preſent inhabited. There are but few officers who were preſent at this engagement, now ſurviving; only three in our army were there; and theſe from the fameneſs of the fields, are unable to give the exact poſition of the two armies.

*Feb.* 7.—A march of twenty-two miles brought us through the large villages of Tilhara, and Shah Jehanpore; where we ſaw many ſpecimens of the dwarf bamboo: That uſeful timber does not attain to its full ſize, ſo near the mountains, but branches out into a ſhrub of great beauty and utility in a hedge. The new village of Cutterah is ſurrounded with a very thick range of theſe buſhes, which are ſtill of ſufficient height to render the houſes inviſible. It was at this place I ſaw a ſpecies of the large Bat, or flying fox of India. It meaſured three feet and a half acroſs the wings; and the mouth, jaws, and colour of the hair, exactly reſembles that of the fox.

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THE country ſeems for ſome part of this journey to have been employed in rice crops. The fields are ſmall, and each ſurrounded with a ſmall dyke or dam to confine water for this crop; the barley, however, is managed partly in the ſame manner, and as rice is hardly any where a produce in Rohilcund, it is probable that the ſmall dams have been erected for watering this produce.

THERE are a great number of inhabitants in Shahjehanpore; the town is confuſed, dirty and ruinous, excepting a few ſtrong places, that are intended either for priſons or ſerais; there is no houſe that riſes ſuperior to a hut. We had here an opportunity of noticing the method of educating the children; which ſeems well adapted for communicating the common and neceſſary branches at a ſmall charge. The boys are aſſembled in a kind of open ſhed or verandah, on the ſide of the ſtreet; the airineſs of the place muſt render it cool and healthy. Each boy is provided with a black board of wood, ſomething like a ſlate, upon which he writes the letters with a pencil of chalk. While he learns to write the characters, he at the ſame time acquires their names, and the power of each when joined in a ſyllable; words and ſentences are next learnt; and thus reading and writing are attained by one and the ſame labour. I am told that theſe uſeful branches are learnt very ſoon, and by as great a number of the common people as in moſt countries in Europe. The Hindooſtanee and the Perſian characters are both

both uſed; ſome claſſes write in the one, and ſome in the other.

We had ſome ſpecimens of the kilns made uſe of for drying grain in this country. They are large earthen pots ſunk deep in the earth, and under them a furnace for feul. Theſe pots are filled with ſand, which is heated almoſt to redneſs, when it is taken out, and in that ſtate mixed with the grain. A few minutes in this mixture fits it for grinding, when it is cleared of the ſand by means of a ſieve. By this method ſmall quantities only are prepared at a time; but ſuch quantities are better adapted to the ſize and execution of their mills, than larger portions, which would ſoon imbibe moiſture and become unfit for the mill.

*Feb.* 9.—Ourah. The two rivers near Shahjehamp rendered this day's march ſhort. The country is not ſo well cultivated as the large towns in its neighbourhood would lead the traveller to expect. Almaſs has left us on the buſineſs of his Zemindary, the puniſhment of thieves, carrying with him a detatchment of the Nawab's army. The frequency of theft and robbery in this country, is not to be aſcribed to lenient puniſhment of crimes. They are no doubt often undetected, but they are, when diſcovered, puniſhed with promptitude, and ſeverity. Yeſterday we paſſed by two offenders who had been brought before this chief. A ſhort hearing ſoon convinced him of their guilt; he inſtantly ordered their heads to be ſtruck off, and

hung up on a tree in terrorem. The bodies were left upon the ground a perquiſite to the jackals. Near the village of Cutterah there were two monuments of the ſeverity of oriental puniſhment, which I had not before noticed, though ſuch are by no means unfrequent. A ſmall arched appartment of brick was erected round the criminal, who was built up while alive in this encloſure. Suffocation muſt ſoon have put an end to his pain. Theſe buildings were pointed out by the natives, who explained their uſe.

*Feb* 10.—We this day marched to Srumnagur, 14 miles. The route leads through Shahabad, a very large town; in extent it reaches about two miles, while the ſcite of the preſent huts does not perhaps cover one third of the ancient ruins, that appear in the form of hills and broken ſwells crumbling to duſt. This town probably had been verging to deſtruction, long before the Rohillah conqueſt; its ruins appear much more ancient and decayed than any which have been effected by that people, or by the Nawab in ſubduing them. The fields in the immediate neighbourhood of Shababad, are well cultivated; the crops are barley, wheat, tobacco, and ſome peas of the ſmall kind. The froſt of this winter has apparently been more ſevere than uſual, ſo far down from the hills. The barley is ſeverely injured; the tobacco ſeems totally withered, and the mangoe trees, now beginning to bloſſom, with a full appearance of fruit, nipped or blaſted by its influence. It ſeemed rather extraordinary that the ſtrong froſts we had in

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the neighbourhood of Anopſere did not affect the grain, where it was more intenſe than here; this probably is owing to the crop's being farther advanced; for it had not then come to the ear.

THE zeal of the Mahomedans ſeems, in upper India, to have been too intolerant, and too laſting to admit of Hindoo temples of any ſize or magnificence. Few of them are to be ſeen in Rohilcund; whereas the moſques are by far the moſt ſplendid buildings in every town. At Shahabad there are many; one in particular claims notice from being entire, and of a very large ſize. Each chief had on his demiſe a large building erected over his grave, where his dependents aſſembled to offer up their prayers for the welfare of his ſoul.

*Feb* 11.—Buckerah. Our journey was this day only eight miles, through a tolerably well dreſſed country; the ſoil however is bare, and ſo ſandy as to riſe in clouds of duſt. The crop is rather late, partly from want of water, and partly from being blighted by the froſt. The ſeaſon has been ſo uncommonly cold, that the whole dohl is checked and withered before the pea is formed. This crop is therefore loſt. A few ſugar fields have preſented themſelves but the cane is very ſhort and poor in quality The raiſing of this crop is the chef *d'œuvre* of Hindoo agriculture; it requires manure as well as repeated plowing and often planting the ſlips of cane; they muſt be frequently inſpected and cleared of the white ant, till they

they have begun to ſhoot. This expence is, however, amply repaid when the crop ſucceeds, for no other grain will yield a produce of equal value, a biggah of land bringing ſometimes 60 rupees, even where the ſugar is cheap.

*Sandy Point, Feb.* 13.—The journey to this place on the frontier of Owde, has diſplayed a ſoil more barren and ſandy than any we have yet ſeen on a march of 500 miles. There are vaſt tracts without a tree or ſhrub, which are covered with a cloud of duſt as often as the wind blows, which at this ſeaſon, generally happens from ten to four every day. The bleak, deſolate, and dreary aſpect of the country, where you are conſtantly ſinking at every ſtep in looſe ſand, and blinded by the ſhowers of duſt, gives an idea of the difficulty of travelling through thoſe immenſe deſarts, that lye between this country and Europe.

Even here, however, cultivation ſucceeds where water is produced in plenty, and we have paſſed by ſeveral fields of good grain where the ſoil is naturally as light and ſterile as that which in its wild ſtate is drifted by the wind. The protection of government, ſlight as it may be, has rendered this comparatively barren ſand, to become more productive than the rich plains of Rohilcund, where the people ſeem to feel no other effects of the Oude government, than its oppreſſions, or its vengeance.

A large lake in the vicinity of our camp has ſuppli-

ed

ed us with plenty of water fowl; among these appear the eyrus, the largeſt of the aquatic birds. This animal can ſtretch itſelf to the height of upwards of ſix feet; even in its ordinary manner of walking, it is nearly as tall as the natives. It makes a beautiful pet, and is very uſeful in picking up noxious vermin in a garden.

*Feb.* 14.—Belgram. This town though placed in our maps at the diſtance of 16 miles from Sandy-Point, is not in reality above half the diſtance. Belgram muſt have been the capital of a large diſtrict. It is ſtill diſtinguiſhed by a ruinous fort, and moat; in the former the foujdar at preſent reſides. The houſes of Belgram are generally of brick and mortar, many of them appear to have been large, and in the beſt ſtile of Mogul architecture. The preſent inhabitants here, as in other towns of this country, dwell in ſmall ſtructures, either of mud or timber.

I found the people, on walking through the town, very converſible. They made their children pay me the compliment of a ſalam; and one in particular gave me a diſtinct account of the ſubjugation of the place by the Nawab's troops, and a detachment under a captain Bailie.

ALMASS has the character of a very rigid collector in this country; his avarice, the vice of age, ſeems to have blinded him to every prudent rule of government. The inhabitants told me that he is never ſatiſfied:

fied: if a man pay two rupees, he muſt raiſe him to three; ſhould the three be forthcoming, the next year brings a demand of four: I aſked if he was poor, that he was ſo very avaricious in drawing away all their money, and was at once told what I always have heard, that he is immenſely rich. By ſuch exactions, the once rich town of Belgram is a heap of ruined buildings interſected with a few huts, under which the ſmall remnant of a wealthy people are obliged to eke out their days of miſery.

In a few days our army will reach Lucknow; for Saudut Al is in terror of the machinations of his rival; his imagination leads him to apprehend from others a conduct ſimilar to his own; hence the piſtol, the dagger, and the poiſoned cup, continually haunt his mind. The man in this ſtate is ſurely not to be envied: he is deprived of that conſcious integrity which is the great baſis of inward tranquillity; and wants that ſort of defence which Horace calls a wall of braſs,

*Nil conſcire ſibi, nulla palleſcere culpa.*

*Lucknow, Feb.* 23, 1795.

MAWLYAH.—THIS is a very large village; in length, fully two miles. The inhabitants are numerous, but the town is mean and irregular; conſiſting almoſt entirely of ſmall mud huts. The country round is better cultivated than any we obſerved ſince we croſſed the Ganges. Almaſs, we are told, has had an action with ſome of the zemindars, who would not without force pay their rent; we ſtop here this day at his requeſt; as he has at preſent but a ſmall army of his own, it is probable that he means to make uſe of our *name*, (for that is all he will receive), to overaw ſome other refractory zemindar in the neighbourhood. The encampment is this day formed in a very extenſive tope of mango trees, whoſe ſhade affords a delightful cool retreat for the wearied ſoldiers.

Theſe

Theſe trees are in full bloom, and promiſe a remarkably plentiful crop of that favourite fruit. The natives are already pointing to the bloſſoms, with a ſort of exultation at the proſpect they afford. The mango grove is a favourite retreat of the large monkeys. From it theſe animals look down upon us with great contempt, conceiving themſelves, it would ſeem, to be a more exalted order of beings, and for reaſons, which even human vanity might deem plauſible; firſt, they certainly occupy a higher ſtation; ſecondly, they receive from the natives a great degree of veneration, and the homage of daily worſhip; and, thirdly, they live under a better government.

AFTER halting one day we marched to Silhitgunge. The intervening village of Sultangunge conſiſts of mud houſes wholly, but all neat, and in full repair. It is one of the few towns in India which does not exhibit marks of decay. Even here however are the ruins of far more durable and extenſive cities, whoſe only veſtige is to be traced by large mounts of brick-duſt: theſe ruins have been perhaps many centuries in their preſent ſtate. The road ſides were this day moſtly cultivated: the wheat and barley are faſt ripening, and the weather begins to get warm; for the wells under the ſhade of the tamarind trees are now reſorted to by travellers, where they quench their thirſt, and ſhelter themſelves from the ſun.

*Feb.* 20.—This day brought us through a large jungle into a vaſt plain, ſaid to be cleared by Miah Almaſs from a thicket of bruſhwood. He has here built a village and a houſe for himſelf, as he ſuppoſes, after the Engliſh manner. The place before theſe operations, is ſaid to have been a neſt of thieves, who ſheltered themſelves in the wide jungle againſt the ſearches of the magiſtrate. The plain ſomewhat reſembles a large park; and is beautified by clumps of mango trees, and fine fields of barley and wheat, which is now getting plump in the ear; a time when grain appears remarkably rich. It is now four months ſince the rains ceaſed, yet the whole of the road was this day interſected with ſheets of water, owing to a thunder ſtorm that happened two days ago, and which was accompanied with a heavy fall of rain; a rare occurrence at this ſeaſon.

General St. Ledger has gone to breakfaſt with the Eunuch Almaſs in his fine hunting ſeat; that is, he will carry his own breakfaſt to the chief's houſe, for with all his deſire to imitate the Engliſh, the accommodations of a Muſſulman are wretched: he could not produce a breakfaſt that a ploughman would wiſh to partake. Miahgunge is built with much regularity, the ſtreets are more than three times the width that is cuſtomary, and the houſes are all of equal height, fronted with a verandah of wood. The figure of the town is a parallelogram, the whole ſurrounded with a brick wall and baſtions for the ſecurity of the inhabitants, againſt the armed

banditti who pervade the country. The whole is in perfect repair, and, in my eyes, almoſt redeems the character of the chief from that parſimony for which he is ſo remarkable.

We marched through the villages of Hoſſein and Tukitgunge on the 21ſt. The former is a poor village, named by the Muſſulmans after the Imaum Hoſſein, grandſon of the prophet. The ſoil conſiſts for the moſt part of looſe blowing ſand; but ſuch fields as are cultivated carry rich crops of wheat and barley.

This day we paſſed a very large bridge over the Sye, a petty ſtream; and at this ſeaſon very unlikely to require fifteen arches. In the rainy ſeaſon, however, it is probable the country may be overflowed, as well as the river ſwollen. We have ſeen no Mahommedan ſtructures nearly equal to this bridge.

Tukitgunge is a village built by Tukit Roy, Bukſhee of the Nawab's army. It is after a regular plan, reſembling that of Almaſs, which alſo bears his name. The Nawab has conſtructed a third village, called Fattehgunge, more elegant than either; it is ſurrounded by a ſquare wall of brick, and in the centre, the ſeveral ſtreets meet in a large ſquare, in the midſt of which ſtands the Cutwal's houſe, the chief magiſtrate of the place.

Kiſſen

Kiſſen Chun has greatly beautified this village by a fine tank, lined with brick, and furniſhed on all ſides with elegant ſtairs leading down to the water. Here the Hindoos reſort for ablution, which they could perhaps not otherwiſe obtain without repairing to the Ganges. The agriculture is here not ſo perfect, nor ſo conſiderable in quantity, as might be looked for in the neighbourhood of a large capital; which is now ſo near, that we can diſcern the minarets towering above the intervening groves of mangoes.

The village of Fattehgunge was built in commemoration of the victory obtained over the Rohillas at Betourah, by Sujah Dowlah.

The town of Viziergunge, near it, was probably built by the firſt Vizier of Oude. The gates are ſtanding perfectly entire, and are almoſt the only veſtiges remaining by which a traveller can diſcover that a town had ever ſtood there; yet the place was perfectly entire about twenty years ago. The cauſe of its deſtruction is ſaid to have been the refuſal of the Cutwal to deliver up ſome thieves who had moleſted paſſengers going through it. On being threatened with the Nawab's vengeance, it unluckily for the town happened that ſome perſons were again robbed there that ſame day. On the next, three battalions were ordered to ranſack the town, and deſtroy the inhabitants; an order which they obeyed with ſuch fatal exactneſs, that not a ſingle hut nor inhabitant

inhabitant was left within the walls. The diſtance between the two gates is more than a mile, and that conſtitutes the length of the principal ſtreet. The rows of trees on each are ſtill ſtanding, having eſcaped the flames by which ths houſes were deſtroyed.

I yeſterday went to view this capital, which is ſaid to contain half a million of ſouls. Happening to enter the town at the weſt end, and which contains the poor mechanics, and labourers of every ſort, I never witneſſed ſo many varied forms of wretchedneſs, filth, and vice The ſtreet which leads to the palace, is upwards of five miles, more than one half of which you wade through mire and filth. During the lapſe of time, the ſtreets ſink from cleaning, or by the blowing away of duſt while dry, ſo that they are fallen in the middle to the depth of ten or twelve feet; and are ſo narrow that two hackaries cannot paſs, nor indeed any carriage however ſmall. My palankeen was frequently ſtopped by the ſmall aſſes, who were paſſing along loaded with bricks. This animal is here ſo ſlender that a ſtout porter could have no difficulty in literally carrying both the beaſt and its burden. Solomon muſt have employed an immenſe number in carrying the materials of the temple. if his aſſes were not of a ſuperior breed to thoſe of Lucknow

The concourſe of a great number of people perhaps does not any where improve their morals; vice

vice and poverty are the only qualities that this people uniformly diſplay. Some ſaunter; others lie down in a kind of dubious ſtate between exiſtence and annihilation; others ſtill are intoxicating themſelves with the Hookah; a few only labour at their profeſſions. The ſhew of rich ſhops and merchandize is remarkably ſmall, though it ſupplies the luxury of the court, or rather the palace; for here there is little affluence beyond the narrow circle of the prince's family.

THE different palaces of the Nawab, the great moſques, and burying places (Imaumbary) diſplay a ſort of ſplendour; for the Muſſulmans are fond to exceſs of decoration; and this taſte always ſhews itſelf in their dreſs and houſes, whenever an individual can afford to indulge it. There are perhaps no buildings in Britain equally brilliant in external appearance as the palaces of Lucknow. The roofs are gilt, and the architecture loaded with ornaments, which have altogether a conſiderable effect on the beholder at firſt ſight. There is however no accommodation within, nothing for comfort or even convenience, the whole being intended for external glare.

THE body of Azoph Dowlah lies interred in an Imaumbary, lighted with a vaſt number of wax tapers: the grave is ſtrewed with flowers and gilt paper. At one ſide is a cenſer with various perfumes; at the other his ſword and cummerbund; and oppoſite

ſite the head lies the tiara or turban, and a copy of the Coran. The grave itſelf is covered with rich bread of barley from Mecca. The whole vault conſtantly echoes to the voice of a company who continue chaunting the Coran. This place has a grand and ſolemn appearance. Religious ideas have a favourable acceſs, while you ſtand amidſt the duſt of kings, and contemplate the inefficacy of their efforts to continue even a ſemblance of their majeſty after death.

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## THE COURT OF LUCKNOW, AND CABINET ON THE DOWLAT KHANAH.

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*Lucknow, March* 9. 1799.

We had this day an opportunity of ſeeing the Mahomedan ſpring feſtival, *(eida.)* celebrated by the Nawab. This takes place annually on the firſt day in March, after the new moon becomes viſible, and is kept in commemoration of Abraham's ſacrifice. A camel inſtead of a ram, is here held to be the ſubſtitute. The princes of Hindooſtan march in proceſſion, at this ceremony, with all their courtiers, and a large military eſcort. On ſuch occaſions the oriental taſte for ſhow, and gaudy magnificence, is diſplayed with labourious and ſtudied attention. And their ſucceſs muſt be acknowledged; for though on a cloſe inſpection their dreſs and ornaments will not gratify a chaſte taſte, yet in a proceſſion they have a grand effect. The howdah's, palankeens, and harneſſing

neſſing of the elephants, are ſo contrived as to exhibit one blaze of gold, in which the ornaments from their number cannot well be diſtinguiſhed.

The moſt ſplendid European court probably falls much ſhort of the magnificence of Saadut Ali upon this occaſion. At day break he marched from the palace with more than ten thouſand men in his train, excluſive of the military eſcort, which might amount to two thouſand more. His progreſs was directed to a large plain where tents had been pitched on the preceeding day for the entertainment of the company. The prince all the way, as well as one of his courtiers, was ſupplied with bags of money, which they ſcattered among the multitude. In this exerciſe it was remarked that his highneſs was extremely tardy; the courtier diſperſed two bags in leſs time than he did a ſingle one. His hands ſeemed to perform with awkward reluctance an office in which they were but feebly ſupported by the parſimonious ſuggeſtions of his heart.

As notwithſtanding its pomp and oſtentation this is a religious ceremony, the firſt part of it, after arriving at the ground, conſiſts in a ſolemn invocation of the Deity for plenty and proſperity during the enſuing ſeaſon: and though the prayers are here accompanied with alms, it is probable that few beneficial effects are produced by theſe indiſcriminate donations. That idle crowd which haunts every large capital, here conſiſts of the moſt profligate and worthleſs

worthleſs of the human race; and of theſe it is only the moſt reſolute and daring who profit by the ſcramble. Their gains ſerve perhaps no other purpoſe than to ſupply their diſſipation for a few days, when they are again forced by their indigence to deſperate courſes.

HERE the tranſitions from tranſient acts of devotion to the groſſeſt crimes, is ſhort and frequent. Only two days before this devout proceſſion, an attempt was made by ſome of theſe ruffians to aſſaſſinate Hoſſein Reza Khan, a very popular miniſter of the prince. It failed in the execution, and may therefore probably be ſoon reiterated. A few days before this period ſeveral of the troops were found out in a traitorous correſpondence with the depoſed Nawab. Superſtition, treachery, and cruelty go here ſo cloſely connected, that few moments only can intervene where reaſon guides the conduct. This religious ſolemnity probably, amidſt all its ſplendour, did not afford one ſacrifice either of clean hands, or a truly devout heart. Ten thouſand rupees were given as donations to the Company's troops; a few of whom were added to contribute to the ſplendour of the occaſion. Amidſt all this blaze of wealth and magnificence, thouſands of poor wretches are ſeen on the road to all appearance in real want. There is not, perhaps, in the whole compaſs of human affairs a more ſtriking diſplay of the inequality of conditions, than this ſcene affords. Extravagant wealth is amaſſed in the hands of one man, and is confined to the

narrow circle of his favourites; and this ſuperfluous ſtore is grinded from the faces of the indigent, who are wallowing in all the filth of penury and wretchedneſs.

THIS ceremony, grand as it appeared, is probably a miniature only of the Court of Delhi, in the proſperous times of the Mogul Empire. There the wealth was nearly tenfold of what is poſſeſſed by the Court of Lucknow, and equally under the controul of a ſingle perſon.

THE feſtival of Eida ſeems to reſemble the feaſt of Tabernacles among the Jews, which by that people was obſerved, we are told, with as little moral effect or purity of intention. "Your new moons, and your Sabbaths, I cannot away with; waſh ye and make you clean; put away the evil of your doings, &c." The Muſſulmans and the Jews ſeem to have equally regarded ſuperſtitious obſervances, as a ſubſtitute for every moral virtue, and a compenſation to the Deity for the violation of his laws.

*March* 15.—I this day went to view the Nawab's Menagerie, which conſiſts of different birds and quadrupeds. In this collection, variety or uſefulneſs has not been ſo much ſought after, as the oddities of nature. Such a cabinet might be extremely uſeful, if models of machines for the improvement of huſbandry or manufactures, or ſuperior breeds of cattle for the purpoſes of agriculture, were collected for the

inſpection

inſpection of the people; but no views of this kind ſeem to have actuated the Princes of Oude in the formation of their collection.

The different ſpecimens of clock-work are curious and expenſive, but by no means calculated to explain to the natives the principles of that uſeful machine. They are viewed here as elegant toys or play-things, which captivate by the ſurpriſe which is neceſſarily occaſioned by ſeeing their effects; but I do not find that any native has yet attempted the conſtruction of a watch or clock.

In the ſame apartments in which theſe machines are kept, there is a conſiderable number of mirrors and other toys, which, though uſeleſs here, muſt have coſt an immenſe ſum in bringing them from Europe. Some paintings are here ſhewn, both native and European: the moſt ſtriking of theſe is a portrait of Sujah Dowlah in the act of ſhooting a tiger, which had leaped upon the howdah of Colonel Harper, and was ready to carry him off. This engaging picture is hurt in the effect by being too ſmall.

A conſiderable number of tigers are kept in different apartments near the palace, but ſo mean and naſty in their appearance that a conſiderable tax is laid upon your patience in going to view them. To their keepers the tigers are ſo tame, that they allow them

them to ſtroke them on the back, as a cat, and like that animal, ſeem gratified by your attention.

The rhinoceros is the moſt remarkable animal in this collection; the only one here is about twelve years old, and ſeems not yet to have attained its full growth, being of a much leſs ſize than the ſpecies generally attains. His ſtrength and ferocity are prodigious: no elephant dares to attack him; for his horn proves at firſt ſtroke fatal: it is a large protuberance growing exactly upon the ſnout, and ſharpening into a point, and with it he can rip up the belly of the largeſt elephant.

The rhinoceros is protected by a thick horny ſubſtance, ſtudded over like a ſhield; which from its hardneſs and thickneſs muſt protect the animal from any foe. A ſword would make no impreſſion upon this ſingular hide, and where it overlaps, it would probably repel a muſket ball.

Of the ſheep there is a great number, and ſome variety; but the Cabul breed ſeems to enjoy the largeſt ſhare of the royal favour. They are in general very fat, and diſtinguiſhed by a large protuberance on the rump far exceeding that of the Cape ſheep. This excreſcence is ſemicircular in form, and of nearly half the ſize of the whole body. Some of theſe ſheep are painted in different colours to gratify the fantaſtic taſte of the natives, a practice which they follow with their bullocks and horſes. When they

they intend to appear very fine, they go ſo far as to gild the hoofs and horns.

THE ſtables of the Nawab conſiſt of a large ſquare court of buildings, ſupported on brick pillars, with a view to the admiſſion of air: theſe conſiſt of more than one range; that which I examined contained about four hundred ſtalls, almoſt all filled with very excellent Perſian horſes. There are ſeparate ſtuds for mares; but breeding does not ſeem the favourite purſuit here: I ſaw but four foals; probably the confinement in which they are kept is unfavourable to the dam and the colt. A park of mares and colts is deemed in England a very agreeable object, but in India it is unattainable, the fields being parched for nine months in the year; a groom is here put to his wits end for provender; hay is unknown; graſs roots ſcraped up with a ſharp trowel, being the ſubſtitute for this provender; and it is often procured on places which you would declare abſolutely bare earth; every thing above ground being completely burnt away.

A very large breed of Guzarat bullocks is kept in a cow-houſe near the ſtables: the introduction of this breed among the peaſants, one would imagine would prove of great advantage in a country where the draught cattle are ſo ſmall and pitiful as thoſe of Oude. But the Ryut, if he gets his labour done, cares not in how ſlovenly a ſtyle it may be executed;

or

or even how ſmall the quantity performed. This is the nature of the race even where it is fully protected; what then can we expect here, where nothing is ſecure, and where a good teem of cattle would be a kind of attractive bait, to bring the robbers to a farm, or an Aumil from the Court, both equally addicted to plunder?

One of the curioſities of this place is a mixed ſpecies between the goat and deer, which is ſpotted, and neater in its form than the ordinary goat. The variety of horned cattle, horſes, and ſheep, is much greater than in Europe. Here are kept a few buffaloes in remarkably fine condition: they are not fully tamed; and by ſome means or other are much handſomer than the common domeſtic kind. Apes, monkies, and a variety of the tropical animals, make a part of the raree ſhew exhibited at this Court: one of the former is taught to make a very genteel ſalam to his viſitors. The natives of India are very fond of theſe accompliſhments; many of them ſpend whole days in teaching parrots to ſpeak a few Perſian words. The management of the Menagerie employs a great number of people; and although their allowances have been much curtailed ſince the commencement of the preſent reign, the department muſt ſwallow up large ſums. Many crores of pigeons are kept at the public expence, and elephants and camels to a large amount.

THE food beſtowed in this manner would remove want from the city, if not from the kingdom of Oude: But the art of government is leſs underſtood, or more perverted in India, than any other ſcience, meanly as we may regard their attainments in them all.

## OF THE MEANS OF EXTENDING THE COMMERCE OF INDIA.

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*Lucknow, Feb.* 1799.

As we have frequently indulged in ſpeculations regarding the future increaſe of the external reſources of the inhabitants of theſe provinces; we ſhall now advert to the probable enlargement of their exterior commerce.

THERE are many extenſive countries with which they yet can boaſt of hardly any commercial intercourſe. The vaſt territory of South America is at preſent ſupplied by a very limited, precarious, and clandeſtine trade to Manilla, and Acapulco. The jealouſy of the Spaniſh government does not admit of Britiſh veſſels trading to the Philippines: the ſupply of America, by this rout, is carried on by Portugueſe or Indian veſſels, and the price of goods is ſo greatly

inhanced, as to prohibit their uſe among the great body of the people. It is pleaſing to anticipate the period, which now, perhaps, is not remote, when a direct trade will be permitted between India and this continent; and the inhabitants of the latter will be ſupplied at leſs than half the expence. The merchants at Acapulco, who ſupply the interior parts, purchaſe Bengal piece goods at 150l. per cent. advance on their prime coſt; and if imported by way of Cadiz and Porto Bello, they are ſtill dearer; whereas by a direct trade with India, they could be afforded at 40l. per cent. on their original value.

THE increaſe of our trade with China, the largeſt and moſt populous empire in the world, has not been overlooked by government. The prejudices of that people are, perhaps, neither ſo unreaſonable, nor unſurmountable, as to forbid all hope of a more enlarged intercourſe. It is but about fifty years ſince the Engliſh appeared on the Ganges poſſeſſed of a factory, and ſtruggling to obtain trade with the natives. During that ſhort period they have ſo rapidly extended their power and influence, that they are now maſters of the greateſt empire in Hindoſtan. Theſe circumſtances cannot be unknown to the aged and reflecting ſovereign of China; they have probably dictated, and they ſeem to juſtify the caution he lately diſplayed in receiving our overtures. A candid and inoffenſive behaviour, will, in the courſe of time, efface theſe ſuſpicions, and remove apprehenſion. The opium trade alone may probably be much extended, as the Com-

pany have changed the mode of providing it by contract: conſequently removed all temptations to violate the quality of this drug.

THE different ſources of trade that will open in the courſe of a free communication, with ſo populous and rich a country, it is impoſſible to foreſee. It lies in the vicinity of Japan, another large empire which already receives ſome Bengal goods; but which may ſoon offer a vent for a much larger ſupply. North America has become one of the beſt cuſtomers to India; and, in the courſe of ages, the infant ſettlement of Port Jackſon may riſe into a market for its produce. Clothing and proviſions can be more eaſily ſupplied from Bengal, than any other quarter; and according to the natural progreſs of ſociety in a country ſo thinly inhabited, the number of the people may rapidly increaſe.

THESE ſources of trade to our India poſſeſſions, do not exiſt merely as the ſpeculations of viſionary men: they are already opened, and have begun to operate, and their increaſe is almoſt unavoidable. Nor is it eaſy to eſtimate what may in a ſhort ſpace be effected by the judicious application of the induſtry of ſo many millions of people. To ſtimulate their enterprize, and direct it to proper objects, is the grand purpoſe to be ever aimed at by a Britiſh government in India; hitherto all their efforts have been repreſſed by the uncontrouled deſpotiſm of the native governments.

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THE rapid increaſe of ſhip-building will at once evince the progreſs which trade has already made, in the port of Culcutta, and determine the plauſibility of thoſe ſpeculations relating to its future increaſe.

BEFORE the year 1780, no effort had been made by any European to conſtruct ſhips in Bengal. Previous to that period its maritime trade had been carried on by ſhipping from Bombay, Surat, or Pegu; and in the periods previous to our acquiſition of territory it had little maritime trade at all; the natives never venturing into the open ſeas.

THE late colonel Watſon in 1781, launched the Nonſuch, a ſhip of 500 tons burden, and carrying 32 guns. This veſſel was conſtructed for the double purpoſe of war and commerce; here ſhe is the firſt fruits of European induſtry, and ſtill is employed in the protection of trade. Bengal now furniſhes ſhipping, not only for its own commerce, but ſupplies foreigners with that article as a branch of its manufactures. From the period above mentioned, till the year 1794, one hundred and fifty ſix ſhips and ſnows have been built, carrying forty thouſand tons. The increaſe has ſince been much more rapid, for laſt year 600 country built ſhip, carrying 209,000 tons, entered the port of Culcutta.

THE difference in point of duration, puts the cheapneſs of theſe country-built ſhips beyond all queſtion. In eight or ten years a European ſhip goes into

into decay, in theſe ſeas; while at Bombay, ſhips of five times that age are ſtill fit for ſea, and at Calcutta, the Nonſuch, after twenty years ſervice, is at preſent employed as a cruiſer againſt the enemy.

THESE facts ſeem to eſtabliſh the propriety of what has frequently been ſuggeſted by the moſt intelligent perſons in India. The building of ſhips of war in this country, ſo many as are neceſſary for the protection of trade, and the conveyance of troops, would certainly be effected on eaſier terms than from Europe. The paſſage out and home would be ſaved; the neceſſity of removing them at ſhort intervals avoided; and the danger to our poſſeſſions from the want of maritime protection, which they have often ſuffered, would no longer be incurred.

THE great increaſe of trade in the port of Calcutta, and the ſucceſs of the ſhip builders there, have ſuggeſted to ſome, ideas far more romantic than I have ventured to expreſs. They have repreſented this country as the great reſource of the Britiſh navy in the event of a ſcarcity of ſhip timber, a cataſtrophe which has long been apprehended. Saul wood, after a ſhort land carriage from the ſpot to the neareſt navigable ſtream, they aſſert, could be eaſily conveyed to Calcutta, along the numerous rivers of Purnea, that iſſue form the Morung hills, and fall into the Ganges: from the viziers country and all the north weſt diſtricts, Siſſoo and Saul timber might be ſupplied by the ſame means, to the dock-yards of Calcutta. Sanguine, as

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my ideas are with regard to the reſources of India, I would not wiſh that the Britiſh navy, on any emergency ſhould be found dependent for timber on the Morung foreſts.

DEEPER intereſts, however, are involved in the increaſe of ſhipping, and cheapneſs of freight ariſing from competition, than at firſt may appear. Sugar, cotton, wool, and a variety of coarſe goods, could be brought to the European market at a low freight, which are precluded by the high rates. The furniſhing of theſe would animate the induſtry, and improve the circumſtances of the great body of the people in India. The firſt conſequence of this would be to enable them to pay a larger revenue, which in their paſt ſtate of poverty has too frequently been found oppreſſive. It would even allow them to ſupport an increaſed contribution with greater eaſe than their preſent burdens, ſince heavy taxes are more eaſily paid by a wealthy populace, than ſmall contributions by a ſtarving multitude. It is not their amount, but the ability of the people to pay them, that renders aſſeſſments either light or oppreſſive.

WERE the whole inhabitants of Britiſh India as wealthy as thoſe at home, the extent of our commerce would become far greater than we have formed any idea of. Inſtead of remitting goods for the few Europeans in India, to the annual amount of 500,000l. the whole native inhabitants would become cuſtomers.

It is alleged that the ſmall amount of Britiſh exports, above ſtated, exceeds the demand; and that metals and woollens are frequently ſold by the Company at a loſs. The clothing of the natives, were their circumſtances adequate to the expence, would, of itſelf, increaſe the demand tenfold. Were the wealth of the natives improved, additional cloathing would not be their only want: it is far from being ſo among the rich, with whom utenſils, and hardware of different kinds, are in demand as neceſſaries of life.

That the prejudices of the Hindoos reſtrain them from the uſe of articles wrought by thoſe of a different perſuaſion, has, after minute enquiry, been found unſupported by fact. It is a maxim of their religion, "that all things come pure from the ſhop;" or in the words of Menu, "the hand of an artiſt employed in his art, is always pure; ſo is every vendible commodity when expoſed to ſale."

That this is not an obſolete maxim, or of doubtful authority, but a practical rule, which guides the daily conduct of all ranks, has been abundantly proved: and on application to the Pundits on this ſubject, it was declared by them that their ſacred injunctions inculcate a preference to woollen, becauſe by a ſimple expoſure to the air, it was conſidered as purified, after being defiled; while water is neceſſary to purify other cloth.

BUT the ſale of woollens has been controverted on the ground, that the dreſs of the natives is ſimple, and that they are bound by the rules of their reſpective caſts to adhere to a particular mode.

THIS is certainly true with the great majority of the natives; but in proportion to their poverty only is it true; and in the ſame degree the remark is applicable to every people. Changes in faſhion, and taſte in dreſs, are every where confined to the affluent claſſes of mankind. The opulent Rajah, or Nawab, pays little regard in his dreſs either to cheapneſs or ſimplicity: all ranks endeavour to obtain comfortable clothing as far as their means will allow: and after all their avidity for money, there is perhaps no people more willing to expend their income.

SOME religious perſons are bound to adhere to a particular mode of dreſs, but theſe are not among the numerous claſſes; and if ſome Sanaſſes go naked, it affords no greater argument againſt the vend of European cloth in India, than the particular habit of monks or nuns affords againſt the ſale of cottons in Europe.

THE ſcanty and unvarying dreſs of Aſiatics, is principally to be aſcribed to their poverty: this has, by a very acurate judge *, been completely proved.

To

* Author of Remarks, &c.

To perſons habituated to obſerve them, the propoſition needs little proof. It is notorious, that both in the rainy and cold ſeaſon, as many individuals provide themſelves with the comfort of a blanket to wrap themſelves in, as can afford it. Few, in compariſon, are able to procure even a coarſe Hindoſtanee flannel: were additional branches of labour provided for the idle, and more adequate wages paid thoſe already employed, this uſeful article would be found in the property of every individual.

Suppose, then, that the circumſtances of ſixty millions of people were ſo far amended, as to admit the purchaſe of flannel to the value of one rupee to each, the increaſed price of that ſingle article from England, would amount to near eight millions ſterling. Could we then anticipate a period, when the numerous ſubjects of Great Britain in Aſia, could afford to live in all the comforts, not of opulence, but of well paid labourers, farmers, and manufacturers; what an advantageous idea would it raiſe of the trade and opulence of a ſmall Iſland which furniſhed a portion of the neceſſaries of life to ſo vaſt a population? Yet ſuch a dream would be realized, if by an uniform and ſteady protection, theſe provinces were brought, I will not ſay to equal China in opulence, population, and induſtry, but to live comfortably in their preſent ſtate.

The Britiſh government, with all its defects, is far preferable to that of China; and were it poſſible in the

the courſe of human affairs, that it were allowed to endure for any thing near to a ſimilar period, why may we not indulge the hope of conſequences equally beneficial? or why ſhould it be deemed unreaſonable to expect future attainments in our country, which have already been long enjoyed by a neighbouring one with far inferior means of improvement?

FROM Cape Comorin to Delhi, the Britiſh have either actual territorial dominion, or very powerful influence: in fact, there is in Hindoſtan no other independent power except the Mahrattas and the Seiks. It becomes therefore their peculiar province to ſtand forth as the guardians of the peace of India. The laſt and moſt powerful of its plunderers has lately been humbled and finally overthrown; and peace has already been enjoyed for ſeveral years. In the ill-conſtructed governments of the Mahrattas there have been, and may ſtill continue, ſome internal commotions; theſe however may be ſo far reſtrained, as not to diſturb the general tranquillity.

SHOULD the peace of India continue to be maintained, there can remain no doubt that induſtry and population will follow, and that too in the exact proportion to the protection afforded by theſe three governments, extending through this extenſive tract of Aſia. On every account it becomes the duty of our nation to take the lead in this benevolent and honourable work; and by diſplaying the ſuperiority of

European ſcience, arts, and induſtry, to ſtimulate the progreſs of the too indolent natives in the career of wealth and happineſs. If in theſe laudable attempts ſhe fail, the diſappointment will be leſs painful and mortifying, than if ſhe had miſcarried in the projects of war, or in the enterpriſes of unprincipled ambition: She will enjoy that conſolation, which, after his fall, remained to the brave but too aſpiring ſon of Apollo;

*Magnis tamen excidit auſis.*

THE END.

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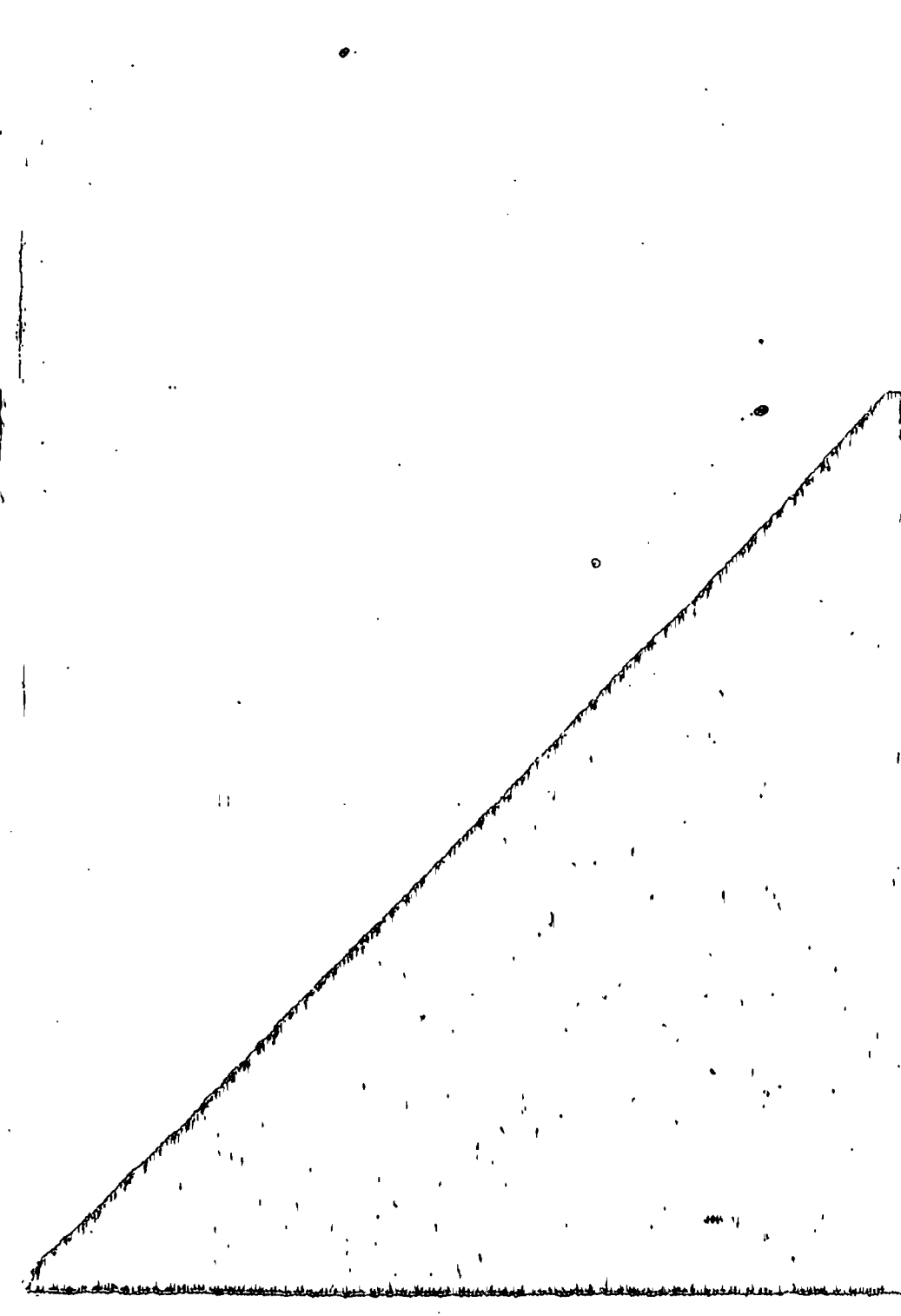

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